dacor®

Technical Diagnostic
Quick Reference Guide

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Install Spec's, Use & Care, Planning Guide:
www.dacor.com

Parts and Service Information:
www.dacorservice.com/PartsCatalog

Technical Diagnostic Quick Reference Index

Dacor Contact information - Page: 2

Index - Page: 3 & 4

Serial Number Format – Page: 5

Oven Temperature Calibration Instructions - Pages: 6 & 7
All Models where Available

Classic Wall Oven & Range Quick ERC Test - Page: 8
Wall Oven Models: CPS/CPD, CPTS/CPTD, ECPS/ECPD, ECS/ECD, PCS/PCD, MCS/MCD Single & Double Ovens, 27, 30 & 36 inches wide.
Range Models: ERSD30/36/48, PGR30, RSE30, RSG30, RSD30, ERD30/36/48/60, ERDE36/48 MRE30, MRES30, EGR30, ERG30/36

Classic Wall Oven & Range Fault Codes - Page: 9
Wall Oven Models: CPS/CPD, CPTS/CPTD, ECPS/ECPD, ECS/ECD, PCS/PCD, MCS/MCD Single & Double Ovens, 27, 30 & 36 inches wide.
Range Models: ERSD30/36/48, PGR30, RSE30, RSG30, RSD30, ERD30/36/48/60, ERDE36/48 MRE30, MRES30, EGR30, ERG30/36

Discovery Wall Oven Diagnostic Mode - Page: 10
Wall Oven Models: EO130, EO230, EO127, EO227, PO130, PO230, PO127, PO227, MOV130, MOV230, MOV127, MOV227, MOH130, MOH230, MOH127, MOH227

Discovery Wall Oven Fault Codes - Page: 11
Wall Oven Models: EO130, EO230, EO127, EO227, PO130, PO230, PO127, PO227, MOV130, MOV230, MOV127, MOV227, MOH130, MOH230, MOH127, MOH227

Renaissance Wall Oven Diagnostic Mode - Page: 12
Wall Oven Models: EORS130, EORS230, EORD230, EORS127, EORS227, EORD227, MORS130, MORS230, MORD230, MORS127, MORS227, MORD227, RO130, ROV130, RO230, ROV230

Renaissance Wall Oven Fault Codes – Page: 13
Wall Oven Models: EORS130, EORS230, EORD230, EORS127, EORS227, EORD227, MORS130, MORS230, MORD230, MORS127, MORS227, MORD227, RO130, ROV130, RO230, ROV230

Distinctive Wall Oven & Range Diagnostic Mode - Page: 12
Wall Oven Models: DO130, DO230
Range Models: DR30D, DR30DI

Distinctive Wall Oven & Range Fault Codes – Page: 13
Wall Oven Models: DO130, DO230
Range Models: DR30D, DR30DI

ER-Range Quick Set Guide – Page: 14
Range Models: ER30D, ER30DSR, ER36D, ER48D

ER-Range Fault Codes – Page: 15
Range Models: ER30D, ER30DSR, ER36D, ER48D

Technical Diagnostic Quick Reference Index Continued…

ER-Range Quick ERC Test – Page: 16 & 17
Range Models: ER30D, ER30DSR, ER36D, ER48D

Classic Dishwasher Factory Test Mode – Page: 18
Dishwasher Models: ID24, ED24SCH, ED24SCP, ED24SBK, ED24SBR, PD24(all colors), MDV24S & MDH24S, ID30, ED30SCH, ED30SCP, ED30SBK, ED30SBR

Classic Dishwasher Factory Fault Codes – Page: 19
Dishwasher Models: ID24, ED24SCH, ED24SCP, ED24SBK, ED24SBR, PD24(all colors), MDV24S & MDH24S, ID30, ED30SCH, ED30SCP, ED30SBK, ED30SBR, MDW24S & EDW24S

Second Generation Millennia Dishwasher Fault Codes – Page: 19 (bottom of page)
Dishwasher Models: MDW24S & EDW24S

Third Generation Dishwasher Diagnostic Mode – Page: 20
Dishwasher Models: DDWF24S, EDWH24S, IDWH24

Third Generation Dishwasher Control Programming and Fault Codes – Page: 21
Dishwasher Models: DDWF24S, EDWH24S, IDWH24

36" Freestanding Refrigerator Programming and Diagnostics – Page: 22 & 23
Models: EF36BNDFSS, IF36BNDFSF, EF36LNDFSF, EF36RNDFSS, IF36INDFSF, EF36BNFSS, EF36LNFSS, EF36RNFSS, EF36BNNFSS and PF36BNDF(all colors)

36" Freestanding Refrigerator with Water/Ice Disp Programming and Diagnostics – Page 24 & 25
Model: EF36IWFSS

First Generation - Classic 42" and 48" Built-in Refrigerator Diagnostics – Page: 26 thru 29
Models: EF42BDCBSS, EF42BNDBSS, IF42BNDBOL, IF42BDCBOL, EF48BDCBSS, EF48BNDBSS, IF48BNDBOL, IF48BDCBOL

Second Generation 36", 42" and 48" Built-in Refrigerator Diagnostics Page: 30 & 31
Models: EF36LNBSS, EF36RNBSS, IF36LNBOL, IF36RNBOL, EF42NBSS. EF42DBSS, IF42NBOL, IF42DBOL, EF48NBSS, EF48DBSS, IF48NBOL, IF48DBOL

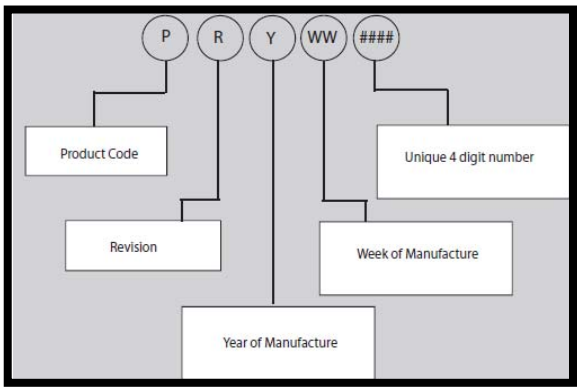
Coffee System Programming – Page 32 & 33
Models: CM24P, CM24T, CM24P-1, CM24T-1

Dacor Serial Number Format:

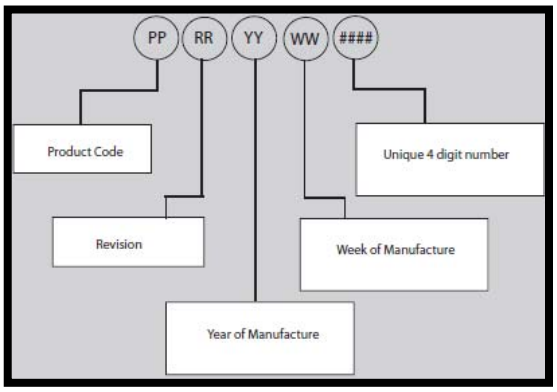
**Prior to the 38th week of 2002 the serial number format was: FC2371234
In 2002 Dacor changed the serial number format slightly to accommodate additional product line growth by adding two (2) characters each for product code and revision and two (2) digits for the year of manufacture.

After the 38th week of 2002 ***and current* the serial number format is: F-C-02381234
A dash was added to separate the two codes - so that a serial number ABC representing product type AB at revision C could not be confused as a product type A at revision BC. There is also a dash added between the revision code and year of manufacture. The year code was increased so a unit manufactured in 1992 would not be confused for a unit manufactured in 2002.

Old Format:



New/Current Format:



First Letter = Product Code:

A = Accessories
B = Blowers
C = BBQ Carts
D = Dishwashers
E = Electric Modules
F = Ranges
G = Coffee System
H = Hoods
J = Electric Ranges
K = Gas Ranges
L = Integrated Hood Liners
M = Metal Cooktops/Gas & Dual Fuel (i.e. SGM and PGM)
P = Wine Coolers
R = Raised Vents
S = Epicure Cooktops
T = Electric Cooktops – Ceran
V = Wall Ovens
W = Warming Ovens/Drawers

Second Letter = Revision Level

New products always start out at revision "A". When ever a change is made to a product in Form, Fit or Function the Revision Level will change. A to B to C etc… (letters I and O will not be used).

First number(s) = Year Manufactured

Old Serial Number Format Example: VB**7**121234 = Unit was manufactured in 1997.
New/Current Serial Number Format Example: V-B-**07**121234 = Unit was manufactured in 2007.

Second Set of Numbers = Week Manufactured

Old Serial Number Format Example: VB7**12**1234 = Unit was manufactured in the 12 week of 1997.
New/Current Serial Number Format Example: V-B-07**12**1234 = Unit was manufactured in the 12th week of 2007.

Last Four Numbers = Unit Number

Old Serial Number Format Example: **VB7121234** = This Product is Unit Number: 1234 and was manufactured in the 12th week of 1997.
New/Current Serial Number Format Example: **V-B-07121234** = This Product is Unit Number: 1234 and was manufactured in the 12th week of 2007.

Oven Temperature Calibration Instructions:

Classic Wall Oven & Range Temperature Calibration Procedure
Wall Oven Models: CPS/CPD, CPTS/CPTD, ECPS/ECPD, ECS/ECD, PCS/PCD, MCS/MCD Single & Double Ovens, 27, 30 & 36 inches wide.
Range Models: ERSD30/36/48, PGR30, RSE30, RSG30, RSD30, ERD30/36/48/60, ERDE36/48, MRE30, MRES30, EGR30, ERG30/36

Classic Products – All models WITH Bake Keypad:

- Select a Bake Cycle, Increase Temperature to 500˚F.
- Quickly press and Hold Bake Keypad until display changes.
- Use Temp Up/Down keypad to select amount of Calibration up to +/-35˚F.
- Press Cancel to lock in new setting. Factory setting is "00".

Classic Range Model: ERD48 WITHOUT Bake Keypad:

- Turn Power Off to unit.
- Press and hold Cancel Key for the small oven.
- Turn power back on while holding Cancel Key. Two Orange "00" will display.
- Quickly press Cancel Key again. "00" will appear on the large oven display.
- Use Temp Up/Down keypad on large oven to select amount of Calibration up to +/-35˚F.
- Press Cancel to lock in new setting. Factory setting is "00".

Classic Range Model: ERD36 WITHOUT Bake Keypad:

- Turn Power Off to unit.
- Press and hold Cancel Key.
- Turn power back on while holding Cancel Key. Two Orange "00" will display.
- Use Temp Up/Down keypad on large oven to select amount of Calibration up to +/-35˚F.
- Press Cancel to lock in new setting. Factory setting is "00".

Discovery Wall Oven Temperature Calibration Procedure
Wall Oven Models: EO130, EO230, EO127, EO227, PO130, PO230, PO127, PO227, MOV130, MOV230, MOV127, MOV227, MOH130, MOH230, MOH127, MOH227

- Press and HOLD "#" keypad, Press and HOLD Cancel/Secure keypad.
- Hold both buttons for 5 seconds.
- Once the display changes, let go of the Cancel/Secure keypad first then the "#" Keypad. Enter your Dacor Servicer Identification Number (or: S1236) and press Enter.
- For Double ovens (single oven skip this step), select the oven that is to be Calibrated (Upper or Lower).
- Press the Service Temp keypad then the OK keypad to acknowledge the Calibration Warning.
- Using the Number Keypad, select the corresponding number next to the Cycle you wish to Calibrate.
- Once the desired Cycle is Highlighted, Press the +5˚F or -5˚F to select the amount of Calibration.
- Once the desired Calibration is displayed, press the OK keypad to lock in new setting.
- Press the Cancel/Secure keypad to EXIT the Temperature Calibration Mode.

Oven Temperature Calibration Instructions Continued:

ER-Dual Fuel Range Temperature Calibration Procedure
Range Models: ER30D, ER30DSR, ER36D, ER48D

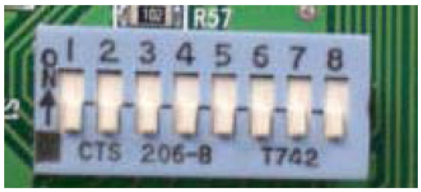
- Press and HOLD Bake Keypad for 10 seconds or until the display changes.
- Using the Number Keypad, enter the new Calibration Offset.
- Use the Self Clean Keypad to select "+" or "-" up to +/-35°F.
- Press Cancel to lock in new setting. Factory setting is "00".

Renaissance & Distinctive Wall Oven & Range Temperature Calibration Procedure
Renaissance Wall Oven Models: EORS130, EORS230, EORD230, EORS127, EORS227, EORD227, MORS130, MORS230, MORD230, MORS127, MORS227, MORD227, RO130, ROV130, RO230, ROV230
Distinctive Wall Oven Models: DO130, DO230
Distinctive Range Models: DR30D, DR30DI

- Press and HOLD the "0" and "#" keypads at the same time. After about 3 seconds, the display will read: PASS.
- Using the Number Keypad, enter pass code: 6-4-2-8 then press the Start Keypad. The display will change and read: SLCE "00".
- Quickly select the cooking mode that needs to be Calibrated. Using the Number Keypad enter the new Calibration Offset.
- Use the "#" Keypad to select "+" or "-" up to +/-35°F.
- Press START to lock in new setting. Factory setting is "00". Press CANCEL to complete procedure.

ER-All Gas Range Temperature Calibration Procedure
Range Models: ER30G, ER30GI, ER36G, ER36GI

- Disconnect Range from Power Supply.
- Pull unit out from wall and remove rear panel of range to access the Relay Board.
- The relay board will have dip-switches mounted near the center of the board.
- Use the chart below to enter Calibration Offset.
- Reassemble Range and restore power.



Note: 0=Off and 1=On

	switches															
BAKE	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
	2	1	1	0	0	1	1	0	0	0	1	1	0	0	1	1
	3	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1
	4	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
OFFSETS		35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35
CONVECTION BAKE	5	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
	6	1	1	0	0	1	1	0	0	0	1	1	0	0	1	1
	7	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1
	8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
OFFSETS		35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35

Dacor Classic Wall Oven and Range ERC Quick Test

Wall Oven Models: CPS/CPD, CPTS/CPTD, ECS/ECD, PCS/PCD, MCS/MCD Single & Double Ovens, 27" & 30"
Range Models: PGR30, RSE30, RSG30, RSD30, ERD30-60, ERDE36-48 MRE, MRES30, EGR30, ERG30-36

To access the ERC Quick Test Program:

Turn circuit breaker off or disconnect power to unit, count to five and then turn power back on. Make sure time of day is blinking. Push and hold COOK TIME. Within 5-10 seconds the EEPROM number will display. The display will show the 4-character identification code of the ERC. Example (1180)

You have 30 seconds between each test mode.

Note: If unit shows time of day start procedure over again.

Test:	Membrane Key:	Component Activated:	Description:
1	Convection Bake	Bake Element & Convection Fan	PRESS and HOLD to activate Bake Element and Convection Fan Motor
2	Bake	Bake Element	Press and Hold to activate the Bake Element Only
3	Pure Convection	Convection Element & Convection Fan	PRESS and HOLD to activate Convection Element and Convection Fan Motor
4	Broil	Broil Element or Broil Ignitor (on gas units)	Press and Hold to activate the Broil Element or Ignitor Only
5	Convection Broil	Broil Element & Convection Fan	PRESS and HOLD to activate Broil Element and Convection Fan Motor (select Models only)
6	Timer 2	Audible Tone	PRESS and HOLD to activate the Audible Tone
7	Stop Time	Cooling Fan	PRESS and HOLD to activate the Cooling Fan Only.
8	Clock	Clock LED's	PUSH and HOLD to momentarily view all clock LED's.
9	Cook Time	Door Latch	With Door Oven, PRESS and HOLD for 10 seconds to activate Door Latch. Door Latch will complete one cycle. The Quick Test will end and ERC will display the time of day.
Note: Holding the Membrane Key down for longer that 30 Seconds at a time could cause an F-0 (Stuck Key Pad) Error Code.			

Celsius to Fahrenheit Conversion:

There have been some occurrences where the clock has changed from Fahrenheit to Celsius. If this situation occurs please perform the following to reset the ERC for proper operation:

Press CONVECTION BAKE key. This will activate the convection bake cycle on the oven display. Adjust the temp to above 500˚F. Press and hold the CONVECTION BAKE key for about five seconds until the "C" appears and then hit +/- (slew) key to toggle to "F". This will work in reverse if the temp for "C" is above 260˚C

Military Time Format – Clock Runs Fast:

There have been some occurrences where the Time readout has been in a 24 hour Military Time Format. In addition, there are also instances where the clock is set for a 50 HZ operational mode causing the readout to gain time. If either of these situations occurs please perform the following to reset the ERC for proper operation:

Turn power off at breaker, count to five and then turn power back on. Make sure time of day is blinking. Push and hold CLOCK Key until a single digit number appears. You may then release the CLOCK Key. Using the "Time-Temp" arrow keys, adjust the number in the display to read the digit "8", and release button. After approximately 15 seconds, the time of day will appear. Set the clock to the correct time of day. The oven will now function properly.

Adjusting the Cooling Fan Cutout Temperature (select Models):

Dacor wall ovens and ranges come preset with the cooling fan cut out preset at 300˚F. (Please note that 300˚F and the indication 000 are the same.) In certain applications, (high or low ambient temps or high altitude) you may want to modify the default setting of the cooling fan cutout temperature. It can be adjusted from 450˚F to 200˚F. To modify the setting, please perform the following sequence waiting no more than three seconds between keystrokes.

- Press broil keypad
- Press the plus temperature keypad
- Press and hold the broil keypad until the display indicates three red numbers on the right side of the display
- Once the cutout temperature is displayed use the plus or minus temperature keypads to raise or lower the setting
- Press cancel secure

Dacor Classic Wall Oven and Range Fault Codes

Wall Oven Models: CPS/CPD, CPTS/CPTD, ECS/ECD, PCS/PCD, MCS/MCD Single & Double Ovens, 27" & 30"
Range Models: PGR30, RSE30, RSG30, RSD30, ERD30-60, ERDE36-48 MRE, MRES30, EGR30, ERG30-36

-F0- Shorted Or Jammed Input Device
This failure will appear if a shorted or jammed input device is defective. Possible causes include shorted wires or a defective membrane switch.

-F1- Alarm "System Watchdog Circuit"
ERC Self-Diagnostic circuitry has detected a failure in the bake/broil system. Any portion of the ERC, relay board, touch pad, heating elements and related wiring may be at fault.
How to diagnose/repair potential cause:
Step 1: Disconnect membrane from ERC. If an F-1 alarm is not activated within 30 seconds, check membrane function test points with an OHM meter. (refer to page 20 of the Diagnostic Test Manual) If the membrane test switch fails, replace membrane. If membrane test is good, continue to step 2.
Step 2: At ERC check for 24 VDC between J2 pins 1 and 3 for upper/single ovens or J5 pins 7 and 10 for lower ovens (when lower oven is not in a cooking/clean mode) **Note: F-1 must be showing in the ERC/Clock Display. I you read 24 VDC at those test points, replace ERC

-F2- Alarm Heating Mode High Temperature
Is activated when the ERC senses a runaway heat condition or when the temperature exceeds "runaway limits". The ERC will beep until the cancel or another function is selected. If the alarm repeats the F2 alarm check the oven sensor and wiring after first checking for a stuck relay. If alarm goes away verify the oven will complete a clean cycle without any type of failure.

-F3- Alarm Shorted Oven Sensor
Occurs when the ERC senses a short circuit in the oven temperature sensor for 16 temperature conversions in a row. F-3 will appear in the digits and a beeping will be heard. If the alarm does not go away after pressing the cancel key check the sensor and wiring. **Important Note: This test will only be performed while a cooking operation is being attempted. The F3 alarm will not be displayed in the time of day mode.

-F4- Alarm Open Oven Sensor
"F4" will be displayed along with a beeping if the ERC determines an open oven temperature sensor circuit for 16 consecutive oven temperature conversions. **Important note: This test will only be performed while a cooking operation is being attempted. The F4 message will not be displayed in the time of day mode. **Important note: If the oven sensor is open the bake modes cannot be activated. The controls will be non-responsive. Look for this failure, as at first appearance you may suspect the ERC or selector instead of an open sensor. A strange number may also appear in this failure mode.

-F5- ERC self-diagnostic failure
Replace ERC.

-F6- Alarm EEPROM Checksum Error
The brain of this oven (so to speak) operates a series of software commands. These commands control the various features and functions of the oven. A numerical value has been assigned to each function or operation. The numerical values can be added up - this is the check sum operation. Every time the system is powered up and after each clean cycle the system performs a check sum and compares the value to the value programmed into the software. (stored in memory.) An EEPROM check sum error or F-6 alarm occurs when the values differ. Only the time of day and timer operation will operate. If you receive a F-6 alarm replace the ERC.

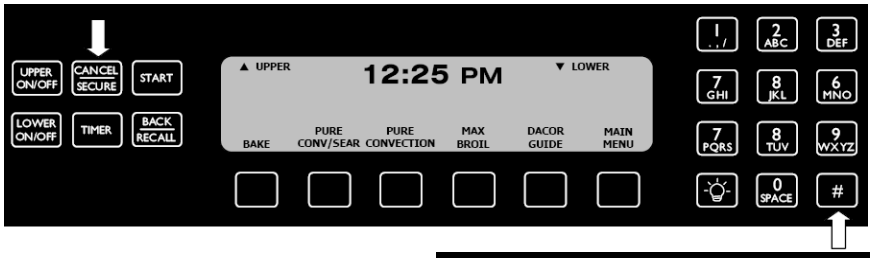
-F7- Alarm Door Lock Enabled Above Temperature
"F7" will appear in the digits and a beeping will be heard if a failure in the clean lock/ phase circuitry is detected for 16 seconds in a row. Check the door lock switches and door adjustments.

-F8- Alarm Door Locking Switch
Occurs when operating the door lock motor if the motor runs for two minutes without seeing the phase switch change positions. This failure will normally occur only when a clean mode is started. If it occurs check the door switches and wiring.

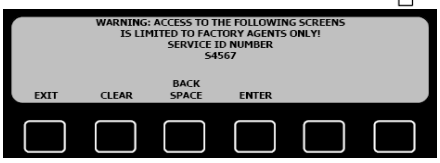
Dacor Discovery Oven Diagnostic Mode:

Models: EO, PO, MOV, MOH, SINGLES AND DOUBLES, 27" AND 30"

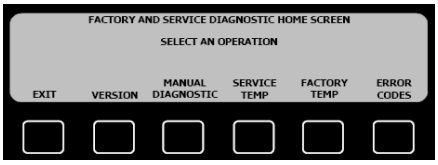
To Enter Diagnostic Mode: With the main power supply to the oven turned on, press and hold the CANCEL/SECURE and # keys at the same time. When the diagnostic password screen appears, release the CANCEL/SECURE key first then the # key. Page 8-1



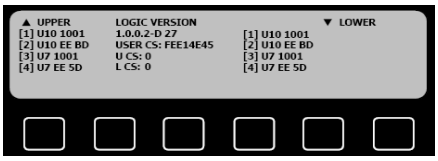
Enter your Dacor Authorized Servicer Number:
Press the 7 key on the keypad repeatedly until the letter S appears just below the words SERVICE ID NUMBER. Wait 3 seconds. Enter your Dacor Servicer Number. Press ENTER. Page 8-1



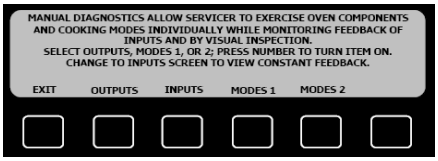
FACTORY and SERVICE DIAGNOSTIC HOME SCREEN:
This screen allows you to access 5 options: VERSION, MANUAL DIAGNOSTIC, SERVICE TEMP, FACTORY TEMP, and ERROR CODES.
When done with the diagnostic screen, press CANCEL/SECURE, to return to home screen. Page 8-1



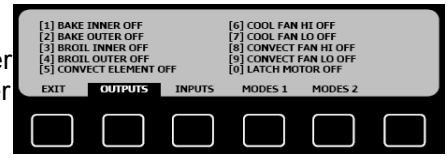
VERSION: Use this option to access information about the software versions programmed into the oven's printed circuit boards. Important: The Versions and checksums for the upper and lower relay boards on a double oven must match for the ovens to work properly. Page: 8-2



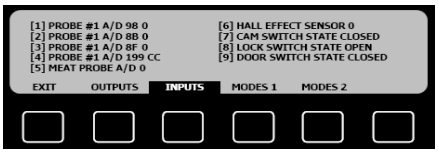
MANUAL DIAGNOSTIC: Use this option to diagnose problems with individual components and cooking modes. This diagnostic screen offers (4) options for exercising the oven components in a matter that will allow diagnosis of various types of failures: Outputs, Inputs, Modes 1 and 2. Page 8-4


MANUAL DIAGNOSTICS ALLOW SERVICER TO EXERCISE OVEN COMPONENTS
AND COOKING MODES INDIVIDUALLY WHILE MONITORING FEEDBACK OF
INPUTS AND BY VISUAL INSPECTION.
SELECT OUTPUTS, MODES 1, OR 2; PRESS NUMBER TO TURN ITEM ON.
CHANGE TO INPUTS SCREEN TO VIEW CONSTANT FEEDBACK.
EXIT
OUTPUTS
INPUTS
MODES 1
MODES 2

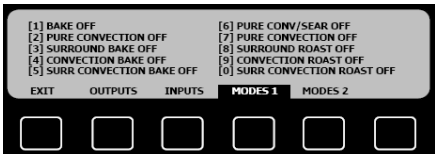
MANUAL DIAGNOSTIC – OUTPUTS: This diagnostic mode allows the Service Tech to turn each output component in the oven on by itself while leaving all other components off. To turn on a particular component, press the appropriate number on the keypad. The display will indicate the component that has been turned on. Page: 8-4



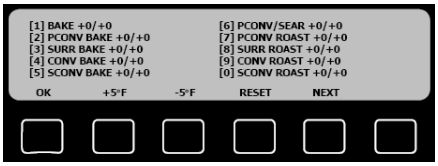
MANUAL DIAGNOSTIC – INPUTS: This diagnostic screen allows the Service Tech to monitor all of the input components while stimulus is supplied. Page 8-4


[1] PROBE #1 A/D 98 0
[2] PROBE #1 A/D 8B 0
[3] PROBE #1 A/D 8F 0
[4] PROBE #1 A/D 199 CC
[5] MEAT PROBE A/D 0
[6] HALL EFFECT SENSOR 0
[7] CAM SWITCH STATE CLOSED
[8] LOCK SWITCH STATE OPEN
[9] DOOR SWITCH STATE CLOSED
EXIT
OUTPUTS
INPUTS
MODES 1
MODES 2

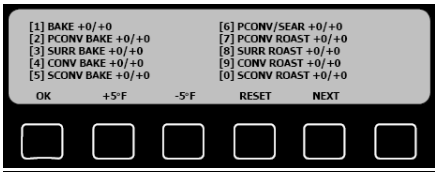
MANUAL DIAGNOSTIC – MODE 1 AND 2: This diagnostic screen allows the Service Tech to set the oven to a cooking mode without having to exit the diagnostics to the home screen. Page 8-6



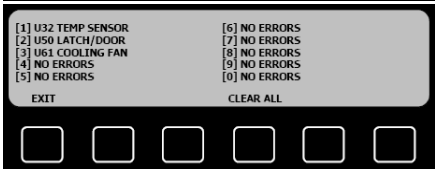
SERVICE TEMP: The service temp screen allows the Service Tech to modify the calibration of the various oven cooking modes. The settings on the SERVICE TEMP screen indicate the amount by which the factory calibration setting settings are raised or lowered. Return the oven to factory settings by changing all the SERVICE TEMP settings back to zero. Page: 8-7



FACTORY TEMP: These are the base calibration settings made at the factory. Dacor does not recommend modifying these settings. If the FACTORY TEMP settings must be changed, they are changed in the same manner as the SERVICE TEMP settings. Page: 8-7



ERROR CODES: This screen will display the twenty (20) most recent error codes stored in the oven controller. The most recent error code will appear in the number one (1) position on the display. Remember to press the CLEAR ALL key before exiting the ERROR CODES SCREEN. Page: 8-8



Dacor Discovery Oven Fault Codes:

Models: EO, PO, MOV, MOH, SINGLES AND DOUBLES, 27” AND 30”

Error Code:	Description of Failure:	Page:	Error Code:	Description of Failure:	Page:
U20 OVER TEMP (UPPER/SINGLE)	Cook temp over 610F for 2 min	9-34	U43 RELAY BOARD (UPPER/SINGLE)	Bad connection on S19 relay or bad Relay Board	9-40
L20 OVER TEMP (LOWER)	Cook temp over 610F for 2 min	9-34	L43 RELAY BOARD (LOWER)	Bad connection on S19 relay or bad Relay Board	9-40
U21 OVER TEMP (UPPER/SINGLE)	Clean temp over 890F	9-35	U50 LATCH/DOOR (UPPER/SINGLE)	No closure of lock switch is detected	9-41
L21 OVER TEMP (LOWER)	Clean temp over 890F	9-35	L50 LATCH/DOOR (LOWER)	No closure of lock switch is detected	9-41
U22 OVER TEMP (UPPER/SINGLE)	One of the sensors are out of calibration or bad	9-35	U51 LATCH/DOOR (UPPER/SINGLE)	No closure of phase switch is detected	9-42
L22 OVER TEMP (LOWER)	One of the sensors are out of calibration or bad	9-35	L51 LATCH/DOOR (LOWER)	No closure of phase switch is detected	9-42
U23 OVER TEMP (UPPER/SINGLE)	Ambient Temp around relay board is too high	9-36	U52 LATCH/DOOR (UPPER/SINGLE)	Bad Lock Switches or possible bad Relay Board	9-42
L23 OVER TEMP (LOWER)	Ambient Temp around relay board is too high	9-36	L52 LATCH/DOOR (LOWER)	Bad Lock Switches or possible bad Relay Board	9-42
U24 OVER TEMP (UPPER/SINGLE)	Ambient Temp probe on relay board is open	9.36	U53 LATCH/DOOR (UPPER/SINGLE)	The Door Switch is open when the Lock Switch is closed	9-43
L24 OVER TEMP (LOWER)	Ambient Temp probe on relay board is open	9-36	L53 LATCH/DOOR (LOWER)	The Door Switch is open when the Lock Switch is closed	9-43
U25 OVER TEMP (UPPER/SINGLE)	Ambient Temp probe on relay board is shorted	9-37	U54 LATCH/DOOR (UPPER/SINGLE)	Bad Relay Board	9-43
L25 OVER TEMP (LOWER)	Ambient Temp probe on relay board is shorted	9-37	L54 LATCH/DOOR (LOWER)	Bad Relay Board	9-43
U30 TEMP SENSOR (UPPER/SINGLE)	Open RTD 1/Check Wiring at Connection Pts.	9-37	U55 LATCH/DOOR (UPPER/SINGLE)	Bad Latch Motor or Bad Relay Board	9-43
L30 TEMP SENSOR (LOWER)	Open RTD 1/Check Wiring at Connection Pts.	9-37	L55 LATCH/DOOR (LOWER)	Bad Latch Motor or Bad Relay Board	9-43
U31 TEMP SENSOR (UPPER/SINGLE)	Shorted RTD 1/Check Wiring at Connection Pts.	9-37	U60 COOLING FAN (UPPER/SINGLE)	Check Cooling Fan operation/Blocked Airflow / Low Speed	9-44
L31 TEMP SENSOR (LOWER)	Shorted RTD 1/Check Wiring at Connection Pts.	9-37	L60 COOLING FAN (LOWER)	Check Cooling Fan operation/Blocked Airflow / Low Speed	9-44
U32 TEMP SENSOR (UPPER/SINGLE)	Open RTD 2/Check Wiring at Connection Pts.	9-37	U61 COOLING FAN (UPPER/SINGLE)	Check Cooling Fan operation/Blocked Airflow / High Speed	9-45
L32 TEMP SENSOR (LOWER)	Open RTD 2/Check Wiring at Connection Pts.	9-37	L61 COOLING FAN (LOWER)	Check Cooling Fan operation/Blocked Airflow / High Speed	9-45
U33 TEMP SENSOR (UPPER/SINGLE)	Shorted RTD 2/Check Wiring at Connection Pts.	9-38	U70 COMM ERROR (UPPER/SINGLE)	Loss of Upper Power Board Communication	9-45
L33 TEMP SENSOR (LOWER)	Shorted RTD 2/Check Wiring at Connection Pts.	9-38	L70 COMM ERROR	Loss of Lower Power Board Communication	9-45
U34 TEMP SENSOR (UPPER/SINGLE)	Open RTD 3/Check Wiring at Connection Pts.	9-38	C72 COMM ERROR	No communication between logic and relay boards	9-46
L34 TEMP SENSOR (LOWER)	Open RTD 3/Check Wiring at Connection Pts.	9-38	C73 COMM ERROR	Verify software compatability and relay board ID settings	9-47
U35 TEMP SENSOR (UPPER/SINGLE)	Shorted RTD 3/Check Wiring at Connection Pts.	9-38	C74 COMM ERROR	Failure on Logic Board	9-47
L35 TEMP SENSOR (LOWER)	Shorted RTD 3/Check Wiring at Connection Pts.	9-38	C75 COMM ERROR	Failed Controller	9-47
N/A - SOFTWARE ONLY	All Probes Fail	9-39	C76 CONFIG	Replace glass/touchpad assembly	9-48
U40 RELAY BOARD (UPPER/SINGLE)	Bad Relay Board/Verify Harness Connections	9-39	C77 CONFIG	Replace glass/touchpad assembly	9-48
L40 RELAY BOARD (LOWER)	Bad Relay Board/Verify Harness Connections	9-39	C78 DISPLAY PANEL LIGHTS	Display voltage has dropped below 15V	9-48
U41 RELAY BOARD (UPPER/SINGLE)	Bad Relay Board/Verify Harness Connections	9-39	U80 MEAT PROBE (UPPER/SINGLE)	Check for shorted/open wires/probe	
L41 RELAY BOARD (LOWER)	Bad Relay Board/Verify Harness Connections	9-39	L80 MEAT PROBE (LOWER)	Check for shorted/open wires/probe	
U42 RELAY BOARD (UPPER/SINGLE)	Failure on Relay Board	9-40	C90 POWER LOSS	Clear Failure Code and retest cooking modes	
L42 RELAY BOARD (LOWER)	Failure on Relay Board	9-40			

Dacor Tec-Line: 800-353-2267

Dacor Renaissance & Distinctive Oven/Range Quick ERC/Diagnostic Test

Models: EORS127, MORS127, EORD227, MORD227, EORS227, MORS227S, EORS130, MORS130, EORD230, MORD230, EORS230, MORS230, RO130, ROV130, RO230, ROV230, DO130, DO230, DR30D & DR30DI

To enter Quick ERC/Diagnostic Test Mode: Disconnect power to unit, count to five and then turn power back on. Wait for the time of day to start blinking then, within 30 seconds, press and hold the “BAKE” and “BROIL” keypads (of the upper oven if working on a double oven) simultaneously until the control shows all display prompts then release the keypads. Within 6-12 seconds the display prompts will disappear leaving a blank screen. Follow Test procedure below. Press "CANCEL" keypad at any time to exit test mode".

To avoid damage to product, exit the test mode by pressing CANCEL or reset power supply once test is complete.
Do Not activate Door Latch in Diagnostic Mode. See Home Screen Test Mode for Door Latch test.

Single/Upper Oven Test

Test Description	Requirement
Numeric Keys	Press each number key. The number will be displayed on the control display.
Bake Element	Press the BAKE key. Verify bake element is on, measure amperage (approx 11-13)
Broil Element	Press the Broil key. Verify broil element is on, measure amperage (approx 12 -16)
Convection Bake	Press the Convection Bake key. Verify Bake & Convection Elements are on, measure amperage (approx 20 -23). Convection Fan will be on.
Convection Broil	Press the Convection Broil key. Verify Broil & Convection Elements are on, measure amperage (approx 22 - 26). Convection Fan will be on.
Pure Convection	Press the Pure Conv. key. Verify Conv. element is on, measure amps (approx 9-11). Conv. Fan will be on.
Convection Fan	Press the Convection Roast key. Verify Convection Fan is on, measure amps (approx 0.1 - 0.8).
Meat Probe Operation (upper oven only)	Press the "Cook Time" or "Duration" key (depending on model). Control will display "Opn" (indicating that the probe circuit is open) and "Prob" (indicating that you are testing the probe circuit). Install the meat probe into the probe socket and "Opn" will change to ambient probe temperature. Warm end of probe with hand and temp read-out should increase.
Control (clock) Temp	Press the START TIME key. Temperature of the Control (Clock) will be displayed.
Relay Board Temp	Press the STOP TIME key. Temperature of the Relay Board will be displayed.
RTD Test	Press the TIMER 1 key. Interior oven temperature will be displayed.

Lower Oven Test

Test Description	Requirement
Bake Element	Press the BAKE key. Verify bake element is on, measure amperage (approx 11-13)
Broil Element	Press the Broil key. Verify broil element is on, measure amperage (approx 12 -16)
Convection Bake	Press the Convection Bake key. Verify Bake & Convection Elements are on, measure amperage (approx 20 -23). Convection Fan will be on.
Convection Broil	Press the Convection Broil key. Verify Broil & Convection Elements are on, measure amperage (approx 22 - 26). Convection Fan will be on.
Pure Convection	Press the Pure Conv. key. Verify Conv. element is on, measure amps (approx 9-11). Conv. Fan will be on.
Convection Fan	Press the Convection Roast key. Verify Convection Fan is on, measure amps (approx 0.1 - 0.8).

Home Screen Test Mode: Press CANCEL key several time to exit Quick ERC/Diagnostic Test Mode or any other cooking mode. Be sure correct time of day is displayed then proceed with tests below.

Test Description	Requirement
Membrane Check	Push each individual keys and verify audible beep. Press "CANCEL".
Oven Lights	Press LIGHT 2 or more times and observe that light turns On and Off.
Cooling Fan Function	Press #, BAKE and then START. This will go to Sabbath mode. Verify that cooling fan is operational. Press "CANCEL".
Door Latch Motor Function	Close oven door and press SELF CLEAN key then START. Check door is locked once lock icon is on solid. Immediately press the CANCEL key. Lock icon will disappear. Repeat for Lower Oven if Applicable
12/24 Hr Clock Mode	Press and hold CLOCK key for 6 seconds until the display shows "12HR" or "24HR". Toggle between "24HR" and "12HR" using the # key. Factory setting is "12 HR".
12Hr Timer Feature	Press and hold TIMER 1 key for 6 seconds until the display shows "12HR" and either "ON" or "OFF". Toggle between "ON" and "OFF" by pressing the # key. Factory setting is "ON".
C/F Setting	Press BROIL key for 5 seconds. Press # key to toggle between "C" and "F". Factory setting is "F".
Lock Out	Press CANCEL-SECURE for 5 seconds. Verify membrane is locked out. Press CANCEL-SECURE again for 5 seconds. Verify membrane is operational.

DACOR RENAISSANCE OVEN & DISTINCTIVE OVEN/RANGE ERROR CODES

Displayed Error Code	Error Condition	Software Logic Description
Control Errors		
C01	Shorted Key Failure	Release of Key not seen in 2 mionutes. Membrane Shorted Key Failure
C23	OCC Ambient Over Temp	Control Board Ambient temp is above 80°C. Oven shuts down with the cooling fans turns ON until the ambient temp falls to 50°C. Possible Cause: Open door Broiling. Instruct customer to leave oven door shut during Broil.
C24	Ambient Temp Thermistor open	Control Board Open thermistor detected.
C25	Ambient Temp Thermistor shorted	Control Board Shorted thermistor detected.
C33	OCC Ambient Over Temp	Relay Board Ambient temperature is above 80°C. Oven shuts down with the cooling fans turns ON until the ambient temp falls to 50°C. Possible Cause: Open door Broiling. Instruct customer to leave oven door shut during Broil.
C34	Ambient Temp Thermistor open	Relay Board Open thermistor detected.
C35	Ambient Temp Thermistor shorted	Relay Board Shorted thermistor detected.
C41	A/D Reference Readings	Sensor value reading(s) - LSI Controller is checking sensor(s) over temp value are correct - ohm sensor(s), if ok replace LSI controller.
C42	E2 Checksum Failure on Control board	E2 - Checksum failure in LSI controller - Calculated checksum does not agree with stored checksum, replace LSI controller.
C43	Wire Connection Error at Control and/or Relay Board	Not all of the pin connectors from the wire harness are making contact with their respective terminal at the Control and/or Relay Boards. Check to make sure that all pins are seated properly in to the Molex plug and that each connector is properly making contact with the correct terminal at the Control and/or Relay Board. **Wires to Relay Board and Controller should ONLY be removed with POWER *OFF* to unit or C43 WILL occur.** This error is not reversible. Controller will need to be replaced.
C44	Checksum Failure on Control board	Calculated FLASH checksum does not agree with the stored FLASH checksum.
C76	Incorrect oven type: Single/Double	Displays error after 3 seconds of sensing an incorrect configuration. Ex: Double Oven Controller installed in Single oven. This error is reversible.
C77	No Connection to Keypad	Keypad detection error. Check connection at Capacitive Touch Panel
Oven Errors U = UPPER OVEN / L = LOWER OVEN		
U20 / L20	Cook over temp	Center of oven cavity temperatures above the maximum bounds of 610°F
U21 / L21	Clean over temp	Center of oven cavity temperatures above the maximum bounds of 890°F.
U30 / L30	Open RTD	Fatal Error. Continuous A/D values over maximum bounds.
U31 / L31	Shorted RTD	Fatal Error Continuous A/D values over minimum bounds.
U50 / L50	Latch Lock Failure	Fatal Error. The door lock is not detected while locking the door.
U51 / L51	Latch Phase Failure	The door phase switch (LATCH NC) is not detected while locking the door.
U55 / L55	Latch Motor Failure	Latch Motor not running. Check for power supplied to latch motor. If power is supplied to motor but will not run, replace latch assembly. Otherwise, trace wires to find failure.
U80	Shorted meat probe	The meat probe for the upper oven is shorted

Dacor: ER Range Quick Set Guide

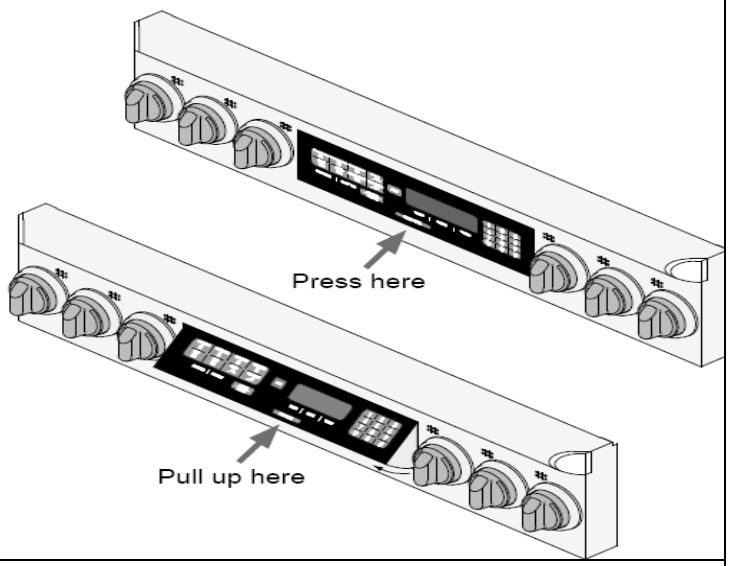
Control Panel Position:
The Control panel can be swiveled to a 50° angle for easier viewing and use.

To pivot control panel:

1. Push in on the bottom of the control panel where it says **"PRESS HERE"**. The control panel will pivot up.
2. Pull the bottom of the control panel housing (under **"PRESS HERE"**) until it locks in place.

To put the control panel back in vertical position:

1. Pull the bottom of the control panel housing (under **"PRESS HERE"**) to unlock it.
2. Push in where it says **"PRESS HERE"** until it locks into the vertical position.



Turning Off the Oven:
To turn the oven off, press the **CANCEL/SECURE** key.
NOTE: After you turn off the oven, the cooling fans may continue

Changing the Temperature
(after you press **START**)
1. Press the key for the current cooking mode. The current cooking mode appears on the display (for example **BAKE**).
2. Enter the temperature on the keypad (for example 3-7-5) and press **START**.

Changing the Oven Cooking Mode
(after you press **START**)
To change to a different cooking mode while the oven is on, for example to change from convection bake to bake:
1. Press the key for the new cooking mode, for example **BAKE**.
2. Press **START**.

Setting the Clock:

1. Press the **CLOCK** key. "TIME" will flash on the display.
2. Enter the current time and press **START**. For example: For 12:08 Press 1-2-0-8 on the keypad, then press start.

Important: After pressing the clock key, you must enter the time and press **START** soon afterward. If you wait longer than six seconds between pressing keys, the display will go back to the original setting. The clock cannot be set during delay timed cooking or if one or both timers are in use. After a power failure, the time on the display will flash, indicating that the time may not be correct.

Starting the Oven:
1. Adjust the racks to the appropriate level.
2. Determine the best cooking mode for the type of food to be cooked.

Select from the following:

- **CONVECTION BAKE** - A combination of the convection fan and a bottom heat source.
- **CONVECTION BROIL** - A combination of the convection fan and a top heat source.
- **PURE CONVECTION™** - Uses convection cooking only for even heat.
- **BAKE** - Cooks with a bottom heat source only.
- **BROIL** - Cooks using a top heat source alone.
- **CONVECTION ROAST** - Combines top and bottom heat sources with the convection fan.

IMPORTANT: The broil modes will not work when the meat probe is connected.

3. Press the key for the desired cooking mode. The preset (jump-in) temperature will appear on the display.
4. Press **START**, to cook at the preset temperature. Or you may enter a different cooking temperature (for example 3-5-0) on the number keypad, then press **START**.

You can enter any temperature between 100°F and 555°F. The suggested broil temperature is 555°F. On model ER48D the same **START** key is used to start both ovens.
If you are using one of the bake or roast modes, "**PRE-**" for preheating, along with the current oven temperature will appear on the display until the oven reaches the set temperature. Once the set temperature is reached, the oven will beep and "**PRE-**" will disappear from the display. Carefully place your food in the oven. Excessive browning will occur if you put the food in too soon.

Lock-Out Feature
If you want to disable the keys on the control panel when the oven is not in use:

- Push and hold the **CANCEL/SECURE** key for about four seconds. The control panel keys will stop working and "**OFF**" will appear on the display. Only the **CANCEL/SECURE** and the oven light keys remain functional.
- To reactivate the control panel, press and hold the **CANCEL/SECURE** key for four seconds. On the ER48Dmodel, press either **CANCEL/SECURE** key to disable the entire control panel.

Dacor: ER Range Fault Code Troubleshooting Guide

Error Code:	Description:	Potential Cause:	How to Diagnose / Repair:
F1	Internal		
F10	Clean / Cook Runaway	Shorted Element relay	Check for closed relay contacts when oven is off. Replace power board if relays are always closed.
		Intermittent Oven Sensor	Verify sensor resistance to oven cavity temperature by monitoring resistance at the power board.
F11	Shorted Key	Switch Failure	Replace membrane
F13	Eprom Failure	Microprocessor Failure	Replace power board
F14	Watchdog Protect Circuit	Defective Control Board	Replace control board
F15	Fuse Error	Defective Control Board	Replace control board
F2	Communication between main & Slave		
F20	Communication Failure	Communication cable not connected	Check communication cable connection between control board & power board
		Defective control board	Replace control board
F3	External		
F30	RTD Short	Shorted sensor	Check sensor resistance. Replace sensor
		Shorted sensor wiring	Check sensor wiring. Repair sensor wiring
F31	RTD Short	Shorted sensor	Check sensor resistance. Replace sensor
		Shorted sensor wiring	Check sensor wiring. Repair sensor wiring
F32	Key loop detect failure	Membrane not connected	Check membrane connection to the control board
		Defective membrane	Replace membrane
F9	Door Lock		
F90	Door unlock timeout	Motor door latch, cam switch or latch switch not connected	Check for correct door latch motor, cam switch, latch switch connection
		Defective door latch, cam switch or latch switch	Replace door latch assembly
F95	Door lock protection circuit	Defective power board	Replace power board

Dacor ER Duel Fuel Range ERC Diagnostic Test

Models: ER30D, ER36D, ER48D and ER60D

To access the ERC Diagnostic Test:
Turn circuit breaker off or disconnect power to unit, count to five and then turn power back on. Within the first 30 seconds after power up, press and hold the BAKE and BROIL keys for 6 to 10 seconds.

Test 1: Latch Motor right/large oven – LOCK/UNLOCK
Press the CLEAN key. Verify that the Latch Motor is moving and that the lock icon is flashing. If the oven door in not closed then block the latch so it will lock. When the latch reaches the locked position verify that the lock motor stops and the LOCK icon is on steady. Verify that the CLEAN icon turns on under the clock digits and the clock digits show "3:00" and the HR icon is lit. Press the CLEAN key again to unlock.

Test 2: EPROM Version of control board
Press the START key. Verify that the EPROM Version of the control board is shown in the temperature digits.

Test 3: Flash Version of control board
Press the PROBE key. Verify that the Flash Version of the control board is shown in the clock digits.

Test 4: Software Version of relay board
Press the CLOCK key. Verify that the Software Version of the relay board is shown in the clock digits.

Test 5: Numeric Keys
Press each one of the number keys on the keypad one at a time. Verify that with each press the same number as the key is shown in the temperature digits repeated three times.

Test 6: Oven Lights ON/OFF
Press the LIGHT key. Verify that the oven lights turn on. Press the LIGHT key again. Verify that the oven lights turn off.

Test 7: Cooling Fan and Temperature Sensor
Press the COOK TIME key. Verify that the TIMED icon is lit. Verify that the Cooling Fan turns on first by the sound and then by feel of airflow from exhaust. Verify that the temperature of the oven is displayed in the temperature digits and is about ambient temperature (65˚-100˚F).

Test 8: Latch Motor left/small oven – LOCK/UNLOCK (for 48" range otherwise skip step)
Press the left/small oven CLEAN key. Verify that the Latch Motor is moving and that the lock icon is flashing. If the oven door in not closed then block the latch so it will lock. When the latch reaches the locked position verify that the lock motor stops and the LOCK icon is on steady. Verify that the CLEAN icon turns on under the clock digits and the clock digits show "3:00" and the HR icon is lit. Press the left/small oven CLEAN key again to unlock.

Test 9: Delay Icon right/main oven
Press the START TIME key (right/large oven side). Verify that the DELAY icon (right/main side) is lit.

Test 10: Delay Icon left/small oven (for 48" range otherwise skip step)
Press the START TIME key (left/small oven side). Verify that the DELAY icon (left/small side) is lit.

Test 11: PRE icon right/large oven
Press CONVECTION BROIL key. Verify that the PRE icon is lit.

Test 12: Oven Number Icon (for 48" range otherwise skip step)
Press left/small oven CANCEL key. Verify that all or the number "1" or "2" icon is lit. Press left/small oven CANCEL key again. Verify that the other number icon is lit.

Test 13: Bake Element right/large oven side
Press the right/large oven side BAKE key and verify that the BAKE and ON icons are lit. Verify that the Bake Element begins to heat (glow red) and that between 10 and 14 amps are being drawn.

Test 14: Broil Element right/large oven side
Press the right/large oven side BROIL key and verify that the BROIL and ON icons are lit. Verify that the Bake Element begins to heat (glow red) and that between 10 and 15 amps are being drawn.

Test 15: Convection Element right/large oven side
Press the right/large oven side CONVECTION BAKE key and verify that the CONV. BAKE and ON icons are lit. Verify that the Convection Element begins to heat (glow red) and that between 8 and 12 amps are being drawn. Verify that the Convection Fan turns on.

Test 16: Convection Fan right/large oven side
Press the right/large oven side PURE CONV. Key and verify that the CONV. And ON icons are lit. Verify that the Convection Fan turns on.

Test 17: Bake Element left/small oven side (for 48" range otherwise skip step)
Press the left/small oven side BAKE key and verify that the BAKE and ON icons are lit. Verify that the Bake Element begins to heat (glow red) and that between 10 and 14 amps are being drawn.

Test 18: Broil Element left/small oven side (for 48" range otherwise skip step)
Press the left/small oven side BROIL key and verify that the BROIL and ON icons are lit. Verify that the Bake Element begins to heat (glow red) and that between 10 and 15 amps are being drawn.

Test 19: Convection Element left/small oven side (for 48" range otherwise skip step)
Press the left/small oven side CONV. BAKE key and verify that the CONV. BAKE and ON icons are lit. Verify that the Convection Element begins to heat (glow red) and that between 8 and 12 amps are being drawn. Verify that the Convection Fan turns on.

Test 20: Convection Fan left/small oven side (for 48" range otherwise skip step)
Press the left/small oven side PURE CONV. Key and verify that the CONV. and ON icons are lit. Verify that the Convection Fan turns on.

Test 21: Error Codes
Press the TIMER 1 key. Verify that the error codes show in the temperature digits. If no fault codes are present display will show "---".

Test 22: Clear Error Codes
Press and hold the TIMER 2 key for at least 6 seconds. Verify that the temperature digits show "---".

To EXIT ERC Diagnostic Test:
Press right/large oven CANCEL key. Verify that the display returns to the time of day mode. Verify that the time shown has progressed.

Other ERC Tests:
Lock Out Feature:
Press the CANCEL/SECURE key and hold for 5 seconds. Verify that the LOCKED icon is lit. Press other keys and verify that no actions occur. Press the CANCEL/SECURE key and hold for 5 seconds. Verify that the LOCKED icon is not lit. Press BAKE key. Verify that the bake mode display is shown. Press CANCEL/SECURE. Verify that the screen shows the time of day.

Meat Probe:
Inset Meat Probe into oven socket. Press BAKE key then START key. Press PROBE key the START key. Verify that the Meat Probe is accepted and showing PRB icon and temperature value of 90 or greater in the temperature digits. Press CANCEL and remove Meat Probe to exit.

12/24-Hour Mode:
Press and hold the CLOCK key for 10 seconds. Verify that the clock digits show "12HR" or "24HR". Toggle setting by pressing SELF CLEAN key until the display show desired setting. Factory setting is "12HR". Press CANCEL key to exit.

12-Hour Cook Mode: (This option is used to limit the maximum cooking time. If it is ON the cooking is limited to 12 hours)
Press and hold the TIMER 1 key for 10 seconds. Verify that the clock digits show 12HR and the temperature digits show "ON" or "OFF". Press the SELF CLEAN key to toggle between ON and OFF. Factory setting is "ON". Press CANCEL key to exit.

UPO Settings: (User programmable offset. Temperature offset to increase / decrease the calibration. The setting will affect all modes)
Press and hold BAKE key 10 seconds. Using the numeric keypad: select your desired temperature adjustment. The controller is adjustable in single degree increments and has a maximum slew of 35°F. Factory setting is "0". Press the SELF-CLEAN key to toggle between + and -. Press CANCEL key to exit.

Celsius / Fahrenheit Setting:
Press and hold the BROIL key for 10 seconds. Verify that the "C" or "F" shoes in the temperature digits. Toggle between "C" and "F" using the SELFCLEAN key. Factory setting is "F". Press CANCEL key to exit.

Silent Mode Setting:
Press and hold the START TIME key for 10 seconds. Verify that the click digits show "BEEP". Verify that the temperature digits either "ON or "OFF". Toggle between "ON" and "OFF" using the SELFCLEAN key. Press CANCEL key to exit.

Timers:
Press TIMER 1, then number 1 then START key. Verify that the timer changes from 1:00 to 0:59 and continues to count down. Press TIMER key again. Verify that the clock shown 0:00 to cancel timer. Repeat for TIMER 2.

Dishwasher Factory Test Mode

<u>24" Models</u>: ID24, ED24SCH, ED24SCP, ED24SBK, ED24SBR, PD24 (all colors), MDV24S & MDH24S
<u>30" Models</u>: ID30, ED30SCH, ED30SCP, ED30SBK & ED30SBR

Factory Test Mode:

The Factory Test Mode, or FTM, is run on each unit during final QC to ensure that all of the components are operating normally. The FTM runs the unit through an abbreviated wash cycle and checks various sensors for response and is a valuable diagnostic tool. By knowing the timing of the FTM (shown below), a technician can check for operation of the component in question at the expected time.

MAKE SURE THAT THE UNIT IS SAFE TO OPERATE, AND ALL PLUMBING CONNECTIONS ARE MADE PRIOR TO RUNNING THE FACTORY TEST MODE.

To Enter the FTM:

1. Press the SECURE key for three (3) seconds. Then press the SECURE key again for three (3) seconds to exit the secure mode.
2. Press DELAY and SANI RINSE keys simultaneously to start the factory test mode.
3. Close the dishwasher door. Be sure to close the detergent dispenser prior to initiating the FTM to check for proper operation.
4. All LED's on the dishwasher will turn ON for about 15 seconds then turn off.
5. The factory test will begin. Use the timing chart below for expected operation timing of the component in question.

If during the FTM one of the electric components fails to operate at the scheduled time, it is likely that either the component has failed, the wiring has failed or the Power Board has partially failed. Start by checking the component in question and working back to the Power Board. Use extreme caution when working with live components.

After test has been completed, press CANCEL key once to exit from the factory test mode. To exit the factory test mode at anytime, press the CANCEL key once. If the FTM has completed without error, a solid green light at the bottom of the door (ED model only) and three beeps will signal that all the major components are operating correctly.

Below is a timing schedule for the factory test:

Component	Duration	Comments
Drain Pump	30 sec	Control Board Version Displayed
Inlet Valve	60 sec	Power Board software1 version displayed
Pause	20 sec	Power Board software2 version displayed
Circ Pump & Heater	300 sec	
Dispenser	5 sec	
Drain Pump	30 sec	

Dishwasher Fault Codes:

<u>24" Models</u>: ID24, ED24SCH, ED24SCP, ED24SBK, ED24SBR, PD24 (all colors), MDV24S & MDH24S

Fault	Cause	Effect	Solution
F-1	Pressure Switch is in the closed position after two full drain procedures.	Three long beeps. F1 will be displayed only during the Diagnostic mode.	Press Cancel key twice to reset this fault. Replace Pressure Switch.
F2	Inlet Valve does not close.	Three long beeps. F2 will be displayed to the user and in Diagnostic mode. Drain pump is ON until open door.	Press Cancel key twice to reset this fault Replace Inlet Valve. Replace control board.
F3	Low inlet water pressure.	Three long beeps. F3 will be displayed to the user and in Diagnostic mode.	Press Cancel key twice to reset this fault. Ensure that Inlet hose is ON. Replace Flow Meter. Replace Inlet Valve.
F4	No response signal from the WPS.	Wash cycle will go into a de-fault time table soil 3 & temp 0. F4 will be displayed only during the Diagnostic mode.	Check WPS connection Replace WPS.
F9	Heater failure	Temperature does not in-crease. Wash cycle will go into a default time table for Heater ON time. F9 will be displayed only during the diagnostic mode.	Replace heater. Replace WPS. Replace Control board.

<u>30" Models</u>: ID30, ED30SCH, ED30SCP, ED30SBK & ED30SBR

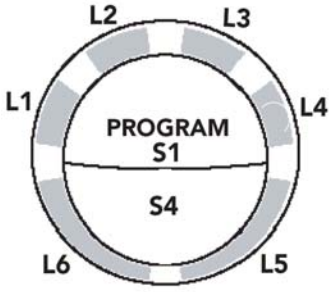
Fault	Cause	Effect	Solution
F-1	Pressure Switch is in the closed position after two full drain procedures.	Three long beeps. F1 will be displayed only during the Diagnostic mode.	Press Cancel key twice to reset this fault. Replace Pres-sure Switch.
F2	Inlet Valve does not close.	Three long beeps. F2 will be displayed to the user and in Diagnostic mode. Drain pump is ON until open door.	Press Cancel key twice to reset this fault Replace Inlet Valve. Replace control board.
F3	Controller failure to communicate with the Power Board	Fault will be visible in the first three seconds of initial power-up. "F3" will flash on the display. Dishwasher will be disabled	Check control and power board compatibility and the wire harness between the two. Replacement of the control and power boards will be necessary if problem persists.
F4	No response signal from the WPS.	Wash cycle will go into a de-fault time table soil 3 & temp 0. F4 will be displayed only during the Diagnostic mode.	Check WPS connection Replace WPS.
F9	Heater failure	Temperature does not in-crease. Wash cycle will go into a default time table for Heater ON time. F9 will be displayed only during the diagnostic mode.	Replace heater. Replace WPS. Replace Control board.

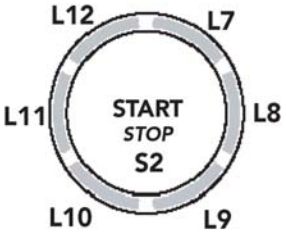
<u>24" Millennia Models</u>: MDW24S & EDW24S

Display Codes (Readout)			
LO	Low Liquid in the Rinse Aid Dispenser	CL	Close and latch the door
PF	A Power Failure has occurred	01-04	Hours delay before the dishwasher will start
HO	Water Heating Delay	CF	Clean Filters

Dishwasher Diagnostic Quick Reference Sheet.

Distinctive Model: DDWF24S

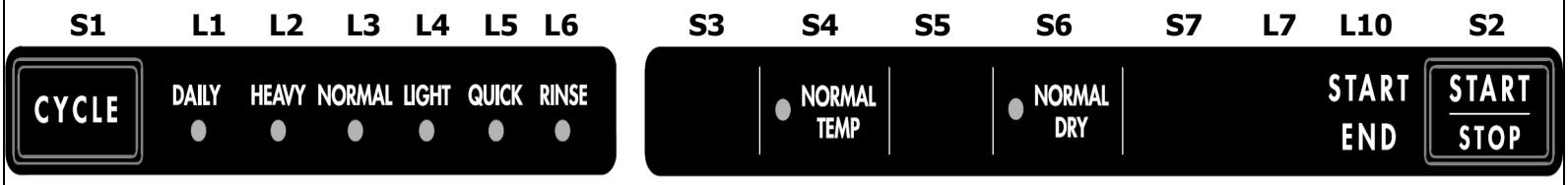




To activate the service menu
1. Turn off the main power switch (I/0)
2. Wait at least 5 seconds
3. Press and hold the Program and Start buttons (S1 & S2)
4. Switch on the main power switch (I/0)
5. Release the Program and Start buttons (S1 & S2) L7 flashes

Press S1 to activate the component test. These are activated in order after each button press:
1. Inlet valve and mixer valve (mixer valve open 1 second then inlet valve open, after next press of S1 both valves closed 1 second then only inlet valve open)
2. Salt water valve (salt and mixer valve only in machines with water softener)
3. Detergent dispenser
4. Circulation pump
5. Circ. pump and element (max. 75°C/167°F)
6. Fan and Wax Motor (if equipped)
7. Drain pump

Epicure Model: EDWH24S Integrated Model: IDWH24



To activate the service menu
1. Turn off the main power switch (I/0)
2. Wait at least 5 seconds
3. Press and hold the Cycle and Start buttons (S1 and S2)
4. Switch on the main power switch (I/0)
5. Release the Cycle and Start buttons (S1 and S2) L10 and L11 flash.

Most recent fault indicated by L1-L6.

Press S1 to activate the component test. These are activated in order after each button press:
1. Inlet valve and mixer valve (mixer valve open 1 second then inlet valve open, after next press of S1 both valves closed 1 second then only inlet valve open). L1 and L2 lit
2. Salt water valve (salt and mixer valve only in machines with water softener). L3 lit
3. Detergent dispenser. L4 lit
4. Circulation pump. L5 lit
5. Circ. pump and element (max. 75°C/167°F). L6 lit
6. Fan and Wax motor. L1 and L2 lit
7. Drain pump. L1, L2 and L3 lit

Dacor Tech Line: 800-353-2267

Dishwasher Control Programming and Fault Code Reference Sheet

Control Programming DDWF24S

When the power is switched on for the first time after replacing the control unit, the Variant settings menu is displayed. L4 flashes (Control with one option: Temp)
1. Press the Program button (S1) until Variant 2 (L4 flashes).
2. Confirm your selection by pressing Start (S2). (The program automatically returns to the main menu.)

Control Programming EDWH24S & IDWH24

When the power is switched on for the first time after replacing the control unit, the Variant settings menu is displayed.
1. Press the Cycle button (S1) until the desired Variant is selected:
   L1 flashes: Variant1 = Time saver
2. Confirm your selection by pressing Start (S2).

The machine detects the presence of a turbidity sensor, a pressure sensor and a spray arm diverter. The program returns to the main menu.

To reset the machine to its factory settings:

1. Turn off the main power switch (I/0)
2. Wait at least 5 seconds.
3. Press and hold the Cycle button (S1)
4. Switch on the main power switch (I/0)
5. Release the Program button (S1).

L1 and L4 flash during the reset process (DDWF24S). The machine will reset various settings, although not water hardness, and then automatically return to the main menu. Detects the presence of a pressure sensor.

Fault Codes:

L1 Temperature Fault Stop (DDWF24S no indication)
Possible Cause: Temperature increase less than 5°C/41°F in ten minutes. Program continues with the process. Only indicated in service menu. Check: Element, thermistor, water level, circulation pump, control unit and cables.

L2 Overfilling
Possible Cause: Too much water in the machine (pressure sensor) or float activated. If the water has not been emptied within 60 seconds, the program stops (drain pump activated). Check: Drain pump (blocked hose), flow meter, inlet valve, leaks and cables.

L3 Thermistor Fault (DDWF24S no indication)
Possible Cause: Stopped or less than 80°C/176°F. Program continues with the process. Only indicated in service menu. Check: Thermistor and control unit.

L4 Water Intake Fault (DDWF24S no indication)
Possible Cause: Less than 80 pulses within 60 seconds or correct number of pulses not achieved within 255 seconds. Program stops.

L5 Leaking valve - Check: Water inlet, flow meter, inlet valve and cables.
Possible Cause: Water intake detected when inlet valve deactivated. Any current program stopped (drain pump activated). Check: Leak through inlet valve and flow meter.

L6 Pressure sensor fault (DDWF24S no indication)
Possible Cause: Output signal greater than 4.8 V. The program continues. Only indicated in service menu. Check: Pressure sensor, control unit and cables.

L7 Drain fault (DDWF24S no indication)
Possible Cause: Water not drained after 120 seconds draining. Program stops. Check: Drain pump, hoses, drain hose fittings, control unit and cables. Also check whether filter is blocked.

FA Turbidity sensor fault - L1 and L5 Flash (DDWF24S no indication)
Possible Cause: Only indicated in service menu. The machine assumes high turbidity in case of "uncertainty" in the auto program. Check: Water quality, filters, turbidity sensor and drain system.

FB Spray arm diverter fault – L1 and L6 Flash (DDWF24S no indication)
Possible Cause: Position switch always closed or open. The program continues. Only indicated in service menu. Check: Spray arm diverter (functioning gearbox, switches and cables).

Dacor 36" Freestanding Refrigerator Programming and Diagnostics:
Models: EF36BNDFSS, IF36BNDFSF, EF36LNDFSF, EF36RNDFSS, IF36INDFSF, EF36BNFSS, EF36LNFSS, EF36RNFSS, & EF36BNNFSS and PF36BNDF (all colors: AG, BK, BU, GN, SG and TS).

Programming Mode: Note: The Programming Code is located on the Serial Plate.
1. Press and Hold the "Door Alarm" Keypad.
2. Press and hold the Freezer Temperature Down Keypad.
3. Release the "Door Alarm" Keypad and wait 3 seconds.
4. The Control will display "PE" to indicate the Programming Mode.
5. Entry is confirmed by pressing the Freezer Temperature Down Keypad once more.
6. The Control will display the current Program Code. This code should be validated with the Program Code printed on the Serial Plate. If the Program Code is correct, the Program Mode can be exited by closing the Refrigerator Door(s).
7. Press the Refrigerator Temperature Up or Down Keypad to change the digit value with each press.
8. The decimal point indicates the selected digit. Press the Freezer Temperature Up Keypad to select the next digit.
9. Once the desired Program Code is entered, press and hold the Freezer Temperature Down key until the Program Code begins flashing indicating it has been saved.

Note: If you attempt to enter an invalid Program Code the control will not save the new code, but will beep (the unit will not run with a Program Code of 0000). Once the Program Code has been saved the Programming Mode is exited by closing the Refrigerator Door(s). If the new code is not correct this process should be repeated after closing the Refrigerator Door(s).

Forced Defrost Mode:
The forced defrost function is performed using the refrigerator display and keypad. Enter the Forced Defrost Mode by the following:
1. Press and Hold the "Door Alarm" Key.
2. Press and Hold the Refrigerator Temperature Down Keypad.
3. Release the "Door Alarm" Keypad and wait 3 seconds. Fd appears in left display.
4. Press the Refrigerator Down Keypad again. Sh appears in the right display.
5. Press again to force defrost, Fd and Sh will flash in Display indicating unit is in defrost.

Service Test Mode:
To enter the Service Test Mode follow these directions.
1. Open the Fresh Food Door and press and hold the "Door Alarm" Keypad.
2. Press and Hold Refrigerator Temperature Up Keypad.
3. Release the "Door Alarm" Keypad and wait 3 seconds. SE appears in the left display.
4. Press the Refrigerator Up Keypad again.
5. Display will show 001 in the left display and numeric or dashes in right display. Test # 001 is for Factory Use Only.
6. Press Freezer Up Keypad and Freezer Down Keypad to toggle through Service Test Number.

Service Test 001 – Factory Use Only

Service Test 101 – Defrost Heater & Defrost Circuit Test
Press the Refrigerator Up Keypad and Refrigerator Down Keypad to energize or de-energize the Defrost Circuit. The display will read OFF when de-energized, OP when energized with an open defrost thermostat and CL when energized with a closed defrost thermostat.

Service Test 102 – Compressor/Condenser Fan Test
Press the Refrigerator Up Keypad and Refrigerator Down Keypad to toggle Compressor/Condenser Fan On and Off.

Service Test 111 – Fresh Food Fan Test (if equipped)
Press the Refrigerator Up Keypad and Refrigerator Down Keypad to toggle the Fresh Food Fan On and Off. Note: Display will show state OFF or DC Voltage

Service Test 112 – Evaporator/Freezer Fan Test
Press the Refrigerator Up Keypad and Refrigerator Down Keypad to toggle the Fresh Food Fan On and Off. Note: Display will show DC Voltage.

Service Test 121 – Open Damper Test
Press the Refrigerator Up Keypad and Down Keypad to toggle Damper (OP) open and (CL) Closed. Note: If Damper is opening or closing it will not allow you to toggle damper and will beep. Display will show –CL or –OP if Damper is in the process of closing or opening.

Service Test 131 – Mullion Heater 3 Door Models
Press the Refrigerator Up Keypad and Down Keypad to toggle Mullion Heater On or Off.

Service Test 141 – Fresh Food Thermistor Test
Display will show Fresh Food Temperature or OP for Open Thermistor or SH for Shorted Thermistor.

Service Test 142 – Freezer Thermistor Test
Display will show Freezer Temperature or OP for Open Thermistor or SH for Shorted Thermistor.

Service Test 143 – Machine Compartment Thermistor
Display will show Machine Compartment Temperature or OP for Open Thermistor or SH for Shorted Thermistor.

Service Test 151 – Fresh Food Door Switch State
Will show the state of the Fresh Food Door Switch(s). OP (open) or CL (closed).

Service Test 152 – Freezer Door Switch State
Will show the state of the Freezer Door Switch(s). OP (open) or CL (closed).

Service Test 174 – Water Actuator; Internal Dispenser
Display shows the state of the Internal Water Dispenser (ON or OFF). By pressing and releasing the Actuator Pad you can turn the inlet valve on and off.

Service Test 181 – Keypad Operation
Display shows a numeric or letter display indicating the last key pressed.

Service Test 182 – LED Indicator Operation
Press the Refrigerator Up Keypad to show the operation of the LED Indicators. All LED Indicators will Flash. Press twice and all LED's will stop flashing.

Service Test 191 – Ice Maker Water Valve
Display shows the state of the Ice Maker Water Valve (ON or OFF).

Service Test 201 – Million Heater 100% Operation (if equipped)
Press the Refrigerator Up Keypad and Down Keypad to toggle Mullion Heater On or Off.

Service Test 202 – Defrost Operation
Press the Refrigerator Up Keypad and Down Keypad to toggle Defrost Operation to minimum time between defrosts On or Off.

Service Test 203 – Factory Use Only

Service Test 211 – Fresh Food Temperature Adjustment
Press the Refrigerator Up Keypad and Down Keypad to adjust temperature set points +6° to -6°. **Note**: this adjustment works in reverse. A -4 setting will increase the temp 4°F. A +4 setting will decrease temp 4°F.

Service Test 212 – Freezer Temperature Adjustment
Press the Refrigerator Up Keypad and Down Keypad to adjust temperature set points +6° to -6°. **Note**: this adjustment works in reverse. A -4 setting will increase the temp 4°F. A +4 setting will decrease temp 4°F.

Service Test 221 – Default Settings Reset
Press the Refrigerator Up Keypad to activate.

Service Test 231 - Water Filter Volume (% consumed)
Display shows volume % consumed since installed.

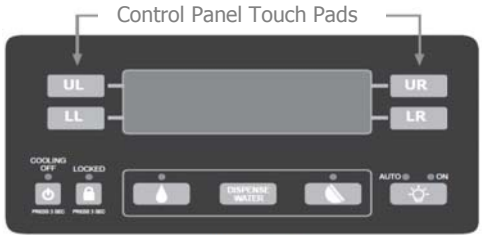
Service Test 232 - Water Filter Time Life
Displays days filter used since installed

Service Test 241 – Software Revision of Main Control
Display shows Software Revision of Main Control

Service Test 242 – Software Revision of Main Display
Display shows Software Revision of Main Display

Service Test 243 – Software Revision Dispenser
Display shows Software Revision Dispenser

Dacor 36" Water/Ice Dispenser Freestanding Refrigerator - Programming and Diagnostics: Model: EF36IWFSS



Programming Mode:

NOTE: The Program Code is located on the Serial Plate after the word Code.

1. Press and hold the WATER Keypad.
2. Press and hold LL Keypad.
3. Release the WATER Keypad and wait 3 seconds.
4. The control will display **PE** to indicate the programming mode.
5. Entry is confirmed by pressing the LL Keypad once more.
6. The control will display the current Program CODE. This value should be validated with the Program CODE printed on the unit serial plate. **NOTE:** If the Program CODE is correct, the Programming Mode is exited by pressing water Keypad for 3 seconds.
7. Press the UR Keypad or LR Keypad to change the digit value with each key press.
8. The decimal point indicates the selected digit. Press the UL Keypad to select the next digit.
9. Once the desired Program CODE is entered, press and hold the LL Keypad until the Program CODE begins flashing indicating it has been saved.

NOTE: If you attempt to enter an invalid Program CODE the control will not save the new code, but will beep. (The unit will NOT run with a Program CODE of 0000). Once the Program CODE has been saved the Programming Mode is exited by pressing any key or by opening or closing the refrigerator door. If the new code is incorrect this process should be repeated.

Forced Defrost Mode:

Enter the Forced Defrost Mode by performing the following sequence of events:

1. Press and hold the WATER Keypad.
2. Press and hold LR Keypad.
3. Release the WATER Keypad and wait 3 seconds. **Fd** appears in the left side of the display.
4. Press the LR Keypad again. **Sh** appears in right side of the display.
5. Press LR again to force defrost **Fd** and **Sh** will flash in display indicating unit is in defrost.

Service Test Mode:

Enter the Service Test Mode by performing the following sequence of events:

1. Press and hold the WATER Keypad.
2. Press and hold UR Keypad.
3. Release the WATER switch and wait 3 seconds.
4. The display will show **SE** confirming entry in the Service Mode.
5. Press the **UR** Keypad again to confirm entry in the Service Mode.
6. Display will show **101** in left display and numeric or dashes in right display.
7. Press UL Keypad and LL Keypad to toggle through Service Test numbers.
8. To exit service test mode, open and close refrigerator door or hold door alarm for 3 seconds.

Service Test - 101 Defrost Heater & Defrost Circuit

• Press the UR keypad or LR keypad to energize or de-energize the Defrost circuit. The display will read **OFF** when de-energized, **OP** when energized with open defrost thermostat and **CL** when energized with closed defrost thermostat.

Service Test - 102 Compressor / Condenser Fan

• Press the UR keypad or LR keypad to toggle Compressor/Condenser fan On and Off.

Service Test - 112 Freezer Fan

• Press the UR keypad or LR keypad to toggle Freezer Fan On High speed, Low speed and Off. **NOTE:** Display will show state **0.0** for OFF, **11.0-14.0** volts for High speed or **7.75- 8.25** volts for Low speed.

Service Test - 113 Ice Compartment Fan

• Press the UR keypad or LR keypad to toggle Ice compartment Fan On High speed, Low speed and Off. **NOTE:** Display will show **0.0** for OFF, **11.0-14.0** volts for High speed or **7.75- 8.25** volts for Low speed.

Service Test - 121 Damper Operation

• Press the UR keypad or LR keypad to toggle Damper **OP** open and **CL** closed. **NOTE:** When damper is opening or closing it will display **--** if damper state is unknown. It can also show **DP** if damper is moving when initially entering service mode.

Service Test - 131 Mullion Heater

• Press the UR Keypad or LR Keypad to toggle Mullion Heater Off and On.

Service Test - 141 Fresh Food Thermistor

• Will Show Fresh Food Temperature or **OP** for open thermistor or **SH** for shorted thermistor.

Service Test - 142 Freezer Thermistor

• Will Show Freezer Temperature or **OP** for open thermistor or **SH** for shorted thermistor.

Service Test - 144 Ambient Thermistor

• Will Show Ambient Temperature or, **OP** open thermistor or **SH** shorted thermistor.

Service Test - 145 Ice Box Thermistor

• Will Show Ice Box Temperature or, **OP** open thermistor or **SH** shorted thermistor.

Service Test - 151 Fresh Food Door State
• Will show state of Fresh Food Door. **OP** (open) **CL** (closed). **NOTE:** By pushing either fresh food door switches you can toggle from **OP** to **CL**.
Service Test - 152 Freezer Food Door State
• Will show state of Freezer Door. **OP** (open) **CL** (closed). **NOTE:** By pushing freezer door switch you can toggle from **OP** (open) to **CL** (closed).
Service Test - 153 Disable Internal Lights
• Press the UR keypad or LR keypad to toggle Enable **En** and Disable **dIS** internal lights.
Service Test - 163 Water Dispenser
• Display shows the state of the Water Dispenser Valve (On or OFF). **NOTE:** By pushing Actuator pad or Express Fill keypad you can control Water Dispenser Valve.
Service Test - 164 External Ice Chute Door
• Display shows the state of the External Ice Chute Door **CL** (closed) or **OP** (open). **NOTE:** By pushing Actuator pad you can control state of External Ice Chute Door.
Service Test - 165 Dispenser Lamp
• Display shows the state of the Dispenser Lamp (On or OFF). **NOTE:** By pushing Actuator or Express Fill keypad you can control dispenser lamp.
Service Test - 167 Cavity Heater Test (On some models)
• Toggles the state of the Cavity Heater On or OFF. **NOTE:** Pushing UR or LR keypads toggles the cavity heaters state to On or OFF
Service Test - 168 Cube Dispenser and Internal Ice Chute Door Operation
• Display shows the state of the ice auger motor and the internal ice chute door. (On or OFF) **NOTE:** By pushing actuator pad you can control state of the Ice auger motor and the internal ice chute door.
Service Test - 171 Actuator Pad
• Display shows the state of the Actuator Pad (On or OFF).
Service Test - 172 Front Fill (On some models)
• Display shows the state of the Front Fill (On or OFF).
Service Test - 173 Ambient Light
• Display shows light sensor measurement (Hi or Lo). Night light will turn on when light sensor measures Lo. By changing the sensor's exposure to ambient light you can control the sensor measurement.
Service Test - 175 Dispenser Switch
• Display shows the state of the Dispenser Switch (On or OFF). **NOTE:** By pushing Actuator pad or Express Fill keypad you can change state of Dispenser Switch.
Service Test - 182 LED Indicator Operation
• Press the UR or LR keypads to show operation of LED Indicators. All LED's will flash. Press again and LED will stop flashing.
Service Test - 183 Keypad Operation
• Display shows a numeric or letter display indicating the last key pressed. **NOTE:** UR and LR keypads have no effect when pressed and UL and LL keypads remain operational.
Service Test - 192 Ice Maker State Test
• Display shows **dr** if left fresh food door switch is in the door open position.
• Display shows **OFF** if ice maker power switch is in the off position and door closed.
• Display shows **On** if the ice maker power switch is in the on position and the door closed and heater is off.
• Display shows **OnH** if icemaker power switch is in the on position and harvest heater is on and door closed.
Service Test - 193 Ice Maker Relay
• Press the UR Keypad or LR Keypad to toggle the ice maker relay On and OFF.

*NOTE: Service tests 201-213 modify factory settings to suit customer's needs.

Service Test - 201 Mullion Heater Override
• Press the UR or LR Keypad to change Mullion Heater from cycling on with compressor (OFF position) to 100% operation (On position). NOTE: If present, the Humidity Control Button toggles between the selected Mullion Heater Function and 0% operation.
Service Test - 202 Default Defrost Operation
• Press the UR or LR Keypad to change Defrost Operation from normal adaptive (Off position) to minimum time between defrosts (On position).
Service Test - 203 Show Temp Set points - Disregard this Test - Unit will not display actual temp only set temp.
Service Test - 211 Fresh Food Temperature Adjustment
• Press the UR or LR Keypad to change calibration of Fresh Food Temperature plus or minus in 1°F increments up to 6°F. **Note**: this adjustment works in reverse. A -4 setting will increase the temp 4°F. A +4 setting will decrease temp 4°F.
Service Test - 212 Freezer Temperature Adjustment
• Press the UR or LR Keypad to change calibration of Freezer Temperature plus or minus 1°F in increments up to 6°F. **Note**: this adjustment works in reverse. A -4 setting will increase the temp 4°F. A +4 setting will decrease temp 4°F.
Service Test - 213 Ice Compartment Temperature Adjustment
• Press the UR or LR Keypad to change calibration of Ice Maker Compartment Temperature + or - 1°F in increments up to + 8°F. **Note**: this adjustment works in reverse. A -4 setting will increase the temp 4°F. A +4 setting will decrease temp 4°F.
Service Test - 221 Reset Default Settings
• Press the UR or LR Keypad to reset to factory default settings **dEF**.
Service Test - 231 Water Filter Usage
• Display shows the percent water filter consumption since water filter was reset. 100% indicates the filter should be replaced.
Service Test - 232 Water Filter Days In Use
• Display shows the number of days since the water filter was reset.
Service Test - 241 Software Revision Main Control Board
• Display shows the Software revision of the Main Control Board.
Service Test - 244 Software Revision Display Board
• Display shows the Software revision of the Display Board.

NOTE: Service tests 3XX and above are reserved for Engineering Use Only.

Dacor 42” and 48” Built-in Refrigerator Diagnostics (First Generation - Classic):

Models: EF42BDCBSS, EF42BNDBSS, IF42BNDBOL, IF42BDCBOL, EF48BDCBSS, EF48BNDBSS, IF48BNDBOL, IF48BDCBOL

Service Test Mode

There are several test modes available through the diagnostic system. Use of these test modes can greatly decrease the time needed for troubleshooting. It is to the service technician’s advantage to be able to perform many tests in a very short period of time.

Within the Service Test Mode the controls have alternate functions. The FREEZER up and down buttons (arrows) will move to the next or the previous service test. If you are at Service Test 4 and press the FREEZER up arrow you will move to Service Test 5.

The REFRIGERATOR up and down arrows will move you through the service tests ten steps at a time. If you are at Service Test 4 and press the REFRIGERATOR up arrow you will move to Service Test 14.

The POWER INTERRUPT button will activate the selected Service Test. At every test, after selecting the test number with the up and down arrows, you must activate the test using the POWER INTERRUPT button. In many cases the display will change and provide you with additional information for that particular test. To end a test and return to the test selection menu, tap the POWER INTERRUPT button again.

To enter the Service Test Mode, the door switches must be held in the door closed position. It would be easiest to tape the switch in the closed position.

Tap the POWER INTERUPT icon three times in succession. The system will switch to the service mode and show the current mode as **NO**RMAL or **no** in the fresh food temperature display. *If the system shows a different indication this indicates that the unit was not in the normal operating mode.*

Pressing The FREEZER up arrow will change the display to **Sh**. This is the **Sh**owroom mode. If the Power Interrupt button is tapped at this point, the system will be in the showroom mode. While in the showroom mode, the lights and display operate but the cooling system does not energize.

Pressing the FREEZER up arrow again will change the display to **SE**. This is the entrance to the **SE**rvice Tests. Tapping the Power Interrupt button will place the unit into service mode and the display will change to 00 00 with the word service illuminated in the display.

From this point forward the up and down arrows are used to move forward or backwards through the Service Tests. The Power Interrupt Button will activate the service test.

If the service mode starts at any location other than 00 00 it is an indication that the Service Tests mode was not properly exited when last serviced.

Service Test 01 – Software Revision

This test will allow you to view the current software version installed on the refrigerator. At the current time there is no method to update the software in the field. Pressing the Power Interrupt Button will display the current software version. Pressing the Power Interrupt Button will return you to the previous screen.

Service Test 02 – High Ambient Override

This is not really a test but a system setting for special operating conditions. By activating the High Ambient override you will alter the temperature control programming. This setting should only be used in cases of high temperatures and high humidity. Pressing the Power Interrupt Button will activate this setting. When activated the WORKING lamp will illuminate. The working lamp will return to normal operation when you exit the Service Tests Mode.
Upon reentry and selecting Service Test 02 the lamp will indicate whether the High Ambient Override is activated. Pressing the Power Interrupt Button will deactivate the High Ambient Override.

Thermistor Tests: This test will give a “GO – NO GO” test of all thermistors. Pressing the Power Interrupt Button will report the condition of the thermistor. Note: The condition displays that follow apply to the tests for all thermistors.

Service Test 03 – Fresh Food Thermistor
PA=Pass; **oP**=Open; **Sh**=Shorted

Service Test 04 – Freezer Thermistor
PA=Pass; **oP**=Open; **Sh**=Shorted

Service Test 05 – Evaporator Thermistor
PA=Pass; **oP**=Open; **Sh**=Shorted

Service Test 06 – Ambient Thermistor
PA=Pass; **oP**=Open; **Sh**=Shorted

Fan Tests: This test will give a “GO – NO GO” test of the Fresh Food and Evaporator Stirrer fans. Pressing the Power Interrupt Button will result in one of the following displays. The fan will always initially display Lo for fan too slow. Let the fan spin up to speed for accurate test. This will only take a few seconds.

Service Test 07 – Fresh Food Fan
PA=Pass; **Lo**= Fan running too slow; **Hi**= Fan running too fast

Service Test 08 – Evaporator / Freezer Fan Test
PA=Pass; **Lo**= Fan running too slow; **Hi**= Fan running too fast

Service Test 09 – Open Damper Fresh Food Compartment
Tap the Power Interrupt Button and the damper will move to the open position. There is no change in the display while the damper opens. It takes between 7 and 15 seconds for the damper to move to the open position.

Service Test 10 – Close Damper Fresh Food Compartment
Tap the Power Interrupt Button and the damper will move to the closed position. There is no change in the display while the damper closes. It takes between 7 and 15 seconds for the damper to move to the closed position.

Service Test 11 – Defrost Heaters
If the defrost safety thermostat is closed the defrost system will draw approximately 3 amps. Pressing the Power Interrupt Button while at Service Test 11 will energize the defrost heaters. When the Power Interrupt Button is tapped the display will indicate the current evaporator temperature on the fresh food side of the display. The temperature should begin to quickly rise when the heaters are energized. This can be used to quickly determine if the defrost system is energized.

Service Test 12 – Condenser Fan
This test will energize the condenser fan. Pressing the Power Interrupt Button will activate the test. Line voltage should be present at JP13 pin 1.

Service Test 13 – Fresh Food Lights
This test will energize the fresh food lamps. Pressing the Power Interrupt Button will energize the fresh food light system. Line voltage should be present at JP12 pin 2.

Service Test 14 – Freezer Lights
This test will energize the freezer lamps. Pressing the Power Interrupt Button will energize the freezer light system. Line voltage should be present at JP 12 pin 3.

Service Test 15 – Fountain Lamp
This test will energize the fountain lamp (dispenser light). Pressing the Power Interrupt Button will energize the fountain lamp. Line voltage should be present at JP8 pin 9.

Service Test 16 – Compressor Maximum Speed
The compressor should have been off for at least five minutes prior to this test. If the off time is not five minutes, the short cycle protection within the compressor controller will prevent operation until enough time has elapsed. The Service Test may time out (three minutes) before sufficient time has elapsed for the compressor to start. If the display changes back to this display (16 00) reactivate the test. Pressing the Power Interrupt Button will start the compressor at maximum speed. The display will show the current evaporator temperature on the fresh food side of the display. If the compressor is working, this temperature should quickly drop. If the compressor does not eventually start after waiting for at least five minutes check for the following conditions: JP10, pins 1 to 2, 2-2.5VAC this is the drive signal from the Main Control Board to the Compressor Controller. CN 05 pins 1 to 6, 230VAC, this is the output from the compressor controller to the compressor.

Service Test 17 – Compressor Minimum Speed
The compressor should have been off for at least five minutes prior to this test. If the off time is not five minutes, the short cycle protection within the compressor controller will prevent operation until enough time has elapsed. The Service Test may time out (three minutes) before sufficient time has elapsed for the compressor to start. If the display changes back to this display (17 00) reactivate the test. Pressing the Power Interrupt Button will start the compressor at minimum speed. The display will show the current evaporator temperature on the fresh food side of the display.
If the compressor is working, this temperature should quickly drop. If the compressor does not eventually start after waiting for at least five minutes check for the following conditions: JP10, pins 1 to 2, 2-2.5VAC this is the drive signal from the Main Control Board to the Compressor Controller. CN 05 pins 1 to 6, 130VAC, this is the output from the compressor controller to the compressor.

Service Test 18 – Fresh Food Fan Speed
This Service Test will verify the feedback signal from the fresh food fan to the Main Control board. Pressing the Power Interrupt Button will report the fan speed in revolutions per second. This reading would be 39 RPS.

Service Test 19 – Freezer Fan Speed
This Service Test will verify the feedback signal from the freezer fan to the Main Control board. Pressing the Power Interrupt Button will report the fan speed in revolutions per second.

Service Test 20 – Fresh Food Thermistor Value
This test will provide the current reading for the fresh food thermistor. This reading is real time and should be very close to the actual temperature of the fresh food thermistor. If the reading is drastically different than the reading from a known good and calibrated digital thermometer, consider replacement of the thermistor. Consider any reading within 5 degrees of a known good calibrated thermocouple acceptable.

Service Test 21 – Freezer Thermistor Value
This test will provide the current reading for the freezer thermistor. This reading is real time and should be very close to the actual temperature of the freezer thermistor. If the reading is drastically different than the reading from a known good and calibrated digital thermometer, consider replacement of the thermistor.

Service Test 22 – Ambient Thermistor Value
This test will provide the current reading for the ambient thermistor. This reading is real time and does not involve the temperature control algorithm. This reading should be very close to the actual temperature of the ambient thermistor. If the reading is drastically different than the reading from a known good and calibrated digital thermometer, consider replacement of the thermistor.

Service Test 23 – Evaporator Thermistor Value
This test will provide the current reading for the evaporator thermistor. This reading is real time and does not involve the temperature control algorithm. This reading should be very close to the actual temperature of the evaporator. If the reading is drastically different than the reading from a known good and calibrated digital thermometer, consider replacement of the thermistor.

Service Test 24 – Display Temperature Select
This test reports the temperature selection switch as read by the board. Pressing the Power Interrupt Button will display the current setting. ˚F = Fahrenheit or ˚C = Celsius.

Service Test 25 – Fountain State
This test reports back the current status of the dispenser. If the dispenser control does not change the output, suspect data communication problems with the dispenser control itself. Pressing the Power Interrupt Button will indicate the current state of the dispenser.
Ld = Dispenser is Locked; **ho** = Dispenser set for Water; **CS** = Dispenser set for Crushed Ice; **CU** = Dispenser set for Cubed Ice.

Service Test 26 – Bypass Valve Switch
This test indicates the current state of the bypass switch. This switch must be reported as actuated for any of the water valves to operate. Pressing the Power Interrupt Button will display the current switch state.
in = Bypass plug is installed; **OU** = Bypass plug is not installed

Service Test 27 – Filter Valve Switch
This test indicates the current state of the filter switch. This switch must be reported as actuated for the filter monitor to operate. Pressing the Power Interrupt Button will display the current switch state.
in = Filter is installed; **OU** = Filter is not installed

Service Test 28 – Actuator Switch
This test displays the current state of the dispenser actuator (paddle switch) as read by the Main Control board. Pressing the Power Interrupt Button will display the current state of the switch.
on = Switch activated **OF** = Switch released

Service Test 29 – Cube Solenoid
This test will energize the cube solenoid. Pressing the Power Interrupt Button will energize the cube solenoid when the Dispenser switch is also actuated.

Service Test 30 – Auger Motor
This test will energize the auger motor. Pressing the Power Interrupt Button will energize the motor when the dispenser switch is also actuated.

Service Test 31 – Chute Solenoid
This test will energize the chute solenoid. Pressing the Power Interrupt Button will energize the chute solenoid.

Service Test 32 – Water Valve
This test will energize the water valve(s) for the dispenser. Pressing the Power Interrupt Button will energize the water valve so long as the dispenser switch is activated.

Service Test 33 – Force Defrost and Exit
This test will initiate a defrost cycle and exit the Service Test Mode. Pressing the Power Interrupt Button will initiate the defrost cycle.
Release the door switch to return to normal operation.

FoodSaver™ TEST MODE

To perform the built-in diagnostics that test the FoodSaver™ module, both door switches must be closed. Tape the fresh food compartment door switch closed. With the door switches closed, the FoodSaver display should be blank.

To enter the FoodSaver test module, press and hold the Citrus and Produce keypads for five seconds.
The LCD should display –88 and be illuminated.
All keypads should be illuminated.
The fan should be off.
The damper should close

Wait seven seconds, touch the Citrus Keypad.
The fan will begin turning.
If the controller does not sense fan rotation, an F will be displayed.
The heater will energize.
If the control does not sense heater continuity, an H will be displayed.
The damper will open.
The display should be blank yet illuminated unless indicating an F or H.
The Citrus keypad should be illuminated.

Wait seven seconds, touch the Produce Keypad.
The control will test the thermistor circuit.
If the circuit is open, OC will show in the display.
If shorted, CC will show in the display.
The display should be blank yet illuminated unless indicating OC or CC.
The produce keypad should be illuminated.

Touch the Meat Keypad. (Not applicable to upper FoodSaver)
The meat keypad will illuminate.

Touch the Normal Keypad
This will exit the diagnostic mode.

The diagnostic mode will terminate if the refrigerator door switch is opened or if five minutes passes with no activity.

Dacor 36”, 42” and 48” Built-in Refrigerator Diagnostics (Second Generation):
Models: EF36LNBSS / EF36RNBSS / IF36LNBOL / IF36RNBOL / EF42NBSS / EF42DBSS / IF42NBOL / IF42DBOL / EF48NBSS / EF48DBSS / IF48NBOL / IF48DBOL

Diagnostic Test Mode
There are several test modes available through the diagnostic system. Use of these test modes can greatly decrease the time needed for troubleshooting. It is to the service technician’s advantage to be able to perform many tests in a very short period of time.

Pre-Diagnostics Checks
• Confirm the refrigerator and freezer temperatures before beginning other checks.
• See if the compressor, evaporator, and condenser fans are running.
• Check the position of the air door.

Diagnostics Mode:
The Diagnostics Mode is used to:
• Check the refrigerator & freezer thermistors.
• Operate the evaporator fan motor at 3000 rpm.
• Operate the condenser fan motor and compressor.
• Check the defrost bimetal and heater.

To enter the diagnostics mode:
To enter the Diagnostics Mode, the control must be turned on, and be in a normal cooling mode.
Both the Power On/Off and the Water Filter Reset keys must be functional. The refrigerator display shows the step number. The results of the checks are displayed on the water filter status indicator. After 20 minutes, the control will default from the Diagnostics Mode to a normal cooling mode.
• Press and hold the Water Filter Reset keypad, and then immediately press and hold the Power keypad. Continue to press both keypads for 3 seconds, or until you hear a beep.

To advance the Diagnostics Sequence:
• To advance to the next step in the sequence, press and hold the Water Filter Reset key for 2 seconds or until you hear a beep. The Diagnostics Chart on the next page shows the step number and the component being tested in each step.
SERVICE TIP: If the control does not respond, it may be necessary to remove power from the entire appliance for a few seconds. Reapply power and perform the service diagnostics routine again to verify that the control is working properly.

Service Diagnostic Mode Chart

Step No.	Component Tested	Suggested Diagnostics Routine	Water Filter Component Status Indicator
1	Freezer Thermistor	Step 1 and Step 2 are internal board tests, which means the main controller board will check the resistance value of each thermistor and display the results on the water filter status indicator.	*01* Pass *02* Thermistor Open *03* Thermistor Short
2	Refrigerator Thermistor		
3	Evaporator Fan Motor	Step 3 is an internal board test, which means that the main control board will automatically verify if the evaporator fan motor is working properly. In step 3, the evaproator fan motor will automatically have its speed set to run at 2500 rpm. If the motor does not reach this pre-selected speed, the WFI display will indicate “02.”	*01* Fan Motor On / Speed OK *02* Fan Motor On / Improper Speed
4	Condenser Fan Motor	Step 4 is a visual inspection test. When step 4 is selected, if the motor is not functioning, verify that 120 VAC is between line and neutral at the condenser fan motor connection (white/red and white wires).	*01* Condenser Fan Motor Eneregized
5	Compressor	Step 5 should turn on the compressor within a 7 second window and will run at full speed, 4500 rpm. NOTE: If the compressor does not turn on during this step, wait 7 minutes, and recheck the compressor.	*01* Commpressor On / Speed OK *02* Compressor Off
6	Air Baffle Motor	Step 6 is a visual inspection test. When step 6 is selected, if the damper motor is operating correctly, the damper will attempt to open fully.	*01* Air Door Open
7	Defrost Heater & Bimetal	Step 7 is a visual inspection test. When step 7 is selected, the heater will energize if the bimetal is closed, and the WFI display will indicate “01.” If the heater does not energize, the bimetal may be open, and will need to be bypassed for the heater to operate. **WARNING: If the bimetal is bypassed for testing (if applicable), do not overheat the evaporator area.**	*01* Defrost Heater Energized / Bimetal Closed *02* Defrost Heater Energized / Bimetal Open

Water Filter Input (WFI) Test

To confirm that the water valves are being monitored by the WFI control, follow the procedures listed:

Testing the Dispenser Valve Input

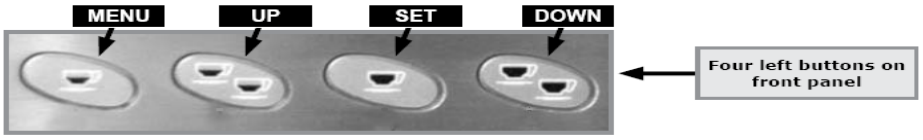
1. Open the refrigerator door.
2. Depress the refrigerator light switch.
3. Place a container under the water spout.
4. Activate the water dispenser.
5. Read the WFI display. “00” indicates a normal input.

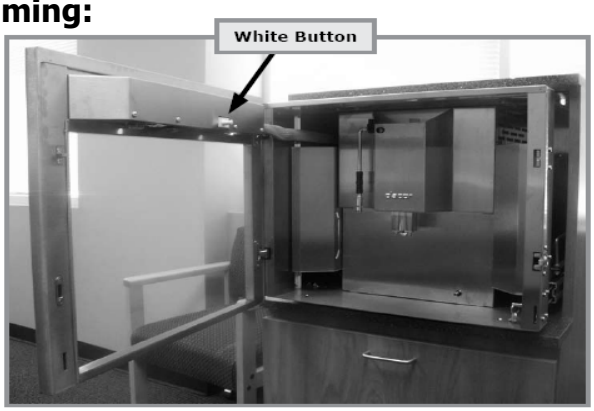
Testing the Ice maker Valve Input

1. Open the refrigerator door.
2. Depress the refrigerator light switch.
3. Activate the ice maker and wait for a water fill.
4. Read the WFI display during the fill. “99” indicates a normal input.

Dacor Coffee System Programming:

Models: CM24T and CM24P





Accessing the Main Programming Menu:

Remove the drip tray. Unlock the front panel door. When the door is open, the buttons on the front of the unit will not make drinks when pushed. "**Machine Off - Front Panel Open**" should appear on the display. If it does not, find the white button on the back of the front panel door. Push and release the white button. Check to make sure "**Machine Off - Front Panel Open**" appears on the display. With the front panel door open, push and release the far left button on the front panel (the one with "**MENU**" above it). Nothing will appear to happen. Pull out on the white button on the back of the front panel door. You will hear the normal sound of the tamping motor cycling. In about 5 seconds "**Cumulative**" will appear on the display. The unit is now in the manual-programming mode. You will use the four buttons on the left of the front panel to program it. The drink functions on the buttons are ignored during the programming process.

Feature Menus

Cumulative Total:

The cumulative total feature allows you to view the total number of drinks made by your coffee system and the number of individual drinks made. It is not programmable. To view the number of drinks made:

1. With "**Cumulative Total**" displayed on the main programming menu, push the **MENU** button.
2. To check each drink individually, repeatedly push the **MENU** button.
3. Push **SET** to exit.
4. Push the **DOWN** button repeatedly to select a feature to change or close the front panel door to exit the main programming menu.

Changing the Button Assignment:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Product Name**" appears on the display. "**Product Name**" changes the type of drink programmed for each button.
2. Push the **MENU** button.
3. Repeatedly push the **MENU** button to see the drink assigned to each button. Each drink type shown has a number in the upper right of the display. The number represents the button programmed for this drink. 1 is the button on the far left, 2 is the next button to the right and so on. Stop on the button number you want to change.
4. To select a drink for the button number shown, scroll using the **UP** or **DOWN** buttons until you find the desired beverage.
5. Push the **SET** button to change to the new drink type.
6. Push the **UP** or **DOWN** repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Changing the Amount of Water:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Water Volume**" appears on the display.
2. Push the **MENU** button.
3. Repeatedly push the **MENU** button to see the amount of water (in CCs) dispensed with each drink. Stop on the drink for which you want to change the amount of water dispensed.
4. To adjust the water amount, push the **UP** or **DOWN** buttons.
5. Push the **SET** button to change to the new water amount.
6. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Changing the Grind Time:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Grind Time**" appears on the display.
2. Push the **MENU** button.
3. Repeatedly push the **MENU** button to see the grind time for each drink. Stop on the drink for which you want to change the grind time.
4. To adjust the grind time, push the **UP** or **DOWN** buttons.
5. Push the **SET** button to change to the new grind time.
6. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Changing the Milk Time:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Milk Time**" appears on the display.
2. Push the **MENU** button.
3. Repeatedly push the **MENU** button to see the milk time for each drink. Stop on the drink for which you want to change the milk time.
4. To adjust the milk time, push the **UP** or **DOWN** buttons.
5. Push the **SET** button to change to the new milk time.
6. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Turning Pre-brew On and Off:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Pre-brew**" appears on the display.
2. Push the **MENU** button.
3. Repeatedly push the **MENU** button to see the pre-brew status for each drink. Stop on the drink for which you want to turn pre-brew on or off.
4. Push the **UP** or **DOWN** buttons to select "**Yes**" or "**No**".
5. Push the **SET** button to make the change.
6. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Turning Tamping On and Off:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Tamping**" appears on the display.
2. Push the **MENU** button.
3. Repeatedly push the **MENU** button to see the tamping status for each drink. Stop on the drink for which you want to turn tamping on or off.
4. Push the **UP** or **DOWN** buttons to select "**Yes**" or "**No**".
5. Push the **SET** button to make the change.
6. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Changing the Used Coffee Ground Bin Meter:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Grounds Number**" appears on the display.
2. Push the **MENU** button.
3.To adjust the number of grounds detected in the bin before the "**Drawer Full**" message appears on the display, push the **UP** or **DOWN** buttons. The default setting is 20.
4. Push the **SET** button to change to the new ground number.
5. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Milk Cleaning Warning Time:

Pre-set at the factory to 2 hours. Do not change.

Routine Cleaning Warning Time:

Pre-set at the factory to 50 cycles. Do not change.

Group Setting:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Group**" appears on the display.
2. Push the **MENU** button.
3.If the group number is not set to 2.0, push the **UP** or **DOWN** buttons until the display shows a group setting of 2.0. The coffee system will not work properly set to any other value.
4. Push the **SET** button.
5. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Changing the Grinder Setting Warning:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Grinder Setting**" appears on the display.
2. Push the **MENU** button.
3. To adjust the amount of drinks prepared before the "**Grinder Setting**" message appears on the display, push the **UP** or **DOWN** buttons. The default is 250.
4. Push the **SET** button to change the grinder setting warning.
5. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Changing the Coffee Temperature:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Coffee Temperature**" appears on the display.
2. Push the **MENU** button.
3. To adjust the coffee temperature, push the **UP** or **DOWN** buttons. The default is 98°C.
4. Push the **SET** button to change the temperature setting.
5. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Changing the Steam Temperature:

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "Steam Temperature" appears on the display.
2. Push the **MENU** button.
3. To adjust the coffee temperature, push the **UP** or **DOWN** buttons. The default is 125°C.
4. Push the **SET** button to change the temperature setting.
5. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.

Changing the Water Filter Warning:

If you install a water filter to lower the hardness of the water supplied to your coffee system, you can program the system to warn you when you need to change the filter cartridge. Check the manufacturer instructions for the filter cartridge capacity. Enter the filter capacity into the coffee system in liters (3.8 liters = 1 gallon).

1. With the main programming menu accessed, push the **UP** or **DOWN** button repeatedly until "**Water Filter**" appears on the display.
2. Push the **MENU** button.
3. To adjust the number of liters used by the coffee system before the "**Water Filter**" message appears on the display, push the **UP** or **DOWN** buttons.
4. Push the **SET** button to accept the clean warning number entered.
5. Push the **UP** or **DOWN** button repeatedly to select another feature to change or close the front panel door to exit the main programming menu.